



6712-01

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Parts 0, 1, and 43

WC Docket No. 11-10; FCC 13-87

Modernizing the FCC Form 477 Data Program

AGENCY: Federal Communications Commission.

ACTION: Final rule.

SUMMARY: The Report and Order revises the Federal Communications Commission's Form 477 collection to include data on deployment of fixed and mobile broadband networks and mobile voice networks, as well as company identification and emergency contact information. The Report and Order also makes a number of targeted changes to the collection of subscription data to reduce reporting burdens and improve the quality and usefulness of data collected through the Form 477.

DATES: Effective [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] except for the amendments to §§ 1.7001, 1.7002, 43.01 and 43.11 of the Commission's rules, which contain information collection requirements that have not been approved by the Office of Management and Budget and will become effective upon announcement in the Federal Register of Office of Management and Budget approval and an effective date of the rules.

FOR FURTHER INFORMATION CONTACT: Chelsea Fallon, Industry Analysis and Technology Division, Wireline Competition Bureau, at (202) 418-0940.

SUPPLEMENTARY INFORMATION: This is a summary of the Commission's Report and Order in WC Docket No. 11-10, FCC 13-87, released on June 27, 2013. The complete text of

this document is available for public inspection during regular business hours in the FCC Reference Information Center, Room CY-A257, 445 12th Street, SW., Washington, DC 20554. It is also available on the Commission's Web site at <http://www.fcc.gov>.

Congressional Review Act

The Commission will send a copy of this Report and Order in a report to be sent to Congress and the Government Accountability Office pursuant to the Congressional Review Act.

Synopsis of Report and Order

I. INTRODUCTION

1. The Commission is committed to robust, data-driven decision making. Data about broadband and voice deployment and subscription are essential to the Commission's ability to fulfill its statutory obligations and play a vital public interest role for other state, local, and federal agencies, researchers, and consumers. To carry out our commitment, we need adequate and reliable data.

2. For the last three years, data on broadband deployment have been collected by the National Telecommunications and Information Administration (NTIA) to populate the National Broadband Map. But NTIA's collection program is nearing its completion. In today's Order, we assume the responsibility for collection of broadband deployment data, with some modifications to streamline and reduce the burdens on providers while making other modest improvements. We applaud NTIA for its collection in coordination with the states through the State Broadband Initiative (SBI). We are proud to carry the torch forward.

3. In addition, this Order makes a number of targeted changes to reduce reporting burdens and enhance the usefulness of data collected through the Form 477. Specifically, we modify our Form 477 program in the following ways. To ensure continuity with the National

Broadband Map, we collect network deployment data for fixed and mobile broadband as well as mobile voice network deployment data. Fixed broadband data will be collected by census block, while mobile broadband and mobile voice providers will provide data showing their network coverage areas. To streamline and reduce burdens, we will not require providers to submit broadband deployment data in predetermined speed tiers, and instead will require providers of broadband services simply to provide advertised speeds—the maximum advertised speed in each census block for fixed broadband, and the minimum advertised speed in each coverage area for mobile broadband. Streamlining the collection in this manner will give the Commission greater flexibility to group and analyze broadband speed data in useful ways. We also allow providers to file all data in a single, uniform format, rather than potentially different formats across the states. To analyze competition for residential versus business customers, fixed broadband providers must distinguish, where appropriate, between deployment of residential and nonresidential services.

4. With regard to our collection of subscription and other data, we also take measures to reduce burdens while improving the quality of our data: To reduce burdens we: eliminate the use of speed tiers for broadband subscription data, as we do with broadband deployment data, and require filers to provide the number of broadband connections by the advertised speeds associated with each product subscribed to in the relevant geographic area, census tracts for fixed and states for mobile. Fixed providers will report connections by the maximum advertised upload and download speeds, while mobile providers will report connections by minimum advertised upload and download speeds. We also eliminate various questions on the current Form 477 in order to streamline the Form, avoid duplication with the new deployment collection, and reduce the burden on filers. To improve the quality of the subscription data we collect, we

require providers of fixed voice and interconnected VoIP services to file subscription data by census tract, as we currently do for fixed broadband subscription data, rather than the current process of requiring such providers to submit the list of ZIP codes in which they provide service to end-user customers. To enhance our ability to meet public safety needs and obligations, we collect emergency contact information from providers. Finally, we require filers to report certain company identification information, which will facilitate transaction reviews, as well as ongoing vigilance against waste, fraud, and abuse of universal service funding.

5. We are committed to improving the data that the Commission collects even as we continue to explore ways to make the Form 477 filing less burdensome. To that end, we direct the Wireline Competition Bureau, in consultation with the Wireless Telecommunications Bureau, to explore technical improvements to the Form 477 filing mechanism that may make the process easier for filers, and to examine ways to collect more granular data without increasing burdens.

II. BACKGROUND

A. Development and Evolution of the Form 477 Data Program

6. The Commission's Form 477 was established in 2000 to provide the Commission with uniform and reliable data not comprehensively available elsewhere. The information submitted through the Form 477 program improves the Commission's ability to comply with statutory requirements and develop, evaluate, and revise policy, and provides important benchmarks for Congress, the Commission, other policy makers, academic researchers, and consumers. The Commission has revised the nature of the information collected via the form several times during the last decade to ensure that we collect data relevant to a changing

marketplace. Nearly four years ago, the National Broadband Plan recommended that the Commission revise its Form 477 data collection to better monitor broadband availability, adoption, and competition. In turn, the Commission launched its Data Innovation Initiative—a whole-agency effort to modernize and streamline how we collect, use, and disseminate data. This Order acts on the commitment to ensure that the Commission has the information it needs for data-driven decision making while minimizing the burden on industry.

7. May 2000 Form 477. The Commission established Form 477 to collect data regarding broadband services, local telephone service competition, and mobile telephony services on a single form and in a standardized manner. The original Form 477 collected subscribership data for local telephone service, including data from incumbent local exchange carriers (LECs) and competitive LECs, on the number of voice-grade equivalent lines and fixed wireless channels in service for the provision of local exchange or exchange access service to end-user customers and for resale. The form required broadband and local telephone service providers to provide a list, by state, of the five-digit ZIP codes in which they provided service to end-user customers. The form required mobile telephony providers to report total subscribers served over their facilities, by state, and the percentage of those subscribers billed directly by the reporting provider.

8. The initial Form 477 collected data from facilities-based broadband providers on the numbers of connections to the Internet in service to end users in each state. The Commission tracked connections with information transfer rates exceeding 200 kilobits per second (kbps) in at least one direction. The Commission required providers to identify the technology used to provide the connections, the percentage of connections used by residential customers and small businesses as a group, whether the connections used the provider’s own “last mile” facilities, and

each ZIP code in which the provider had at least one connection in service by means of any broadband technology.

9. 2004 Revisions. To capture a more comprehensive picture of broadband deployment in rural areas, in 2004 the Commission required submissions from all facilities-based providers of broadband connections. The Commission further required filers to report the percentage of their connections that fell into five speed tiers. Incumbent LECs were required to report the percentage of residential end-user premises in their service areas where DSL connections were available, and cable system operators were required to report comparable information for their cable modem service. Also, filers were required to identify which particular fixed-location broadband technologies were being used to provide connections in individual ZIP codes.

10. 2008 Revisions. In 2008, the Commission again revised the Form 477 data program to collect more granular subscription data and improve the quality of data on mobile wireless broadband services. The Commission determined that all wireline, terrestrial-fixed wireless, and satellite broadband service providers must report the numbers of subscribers by census tract, broken down by technology and more disaggregated speed tiers, and the percentage of subscribers that are residential. The Commission extended filing requirements to providers of interconnected Voice over Internet Protocol (VoIP) service, requiring them to report the number of subscribers they serve in each state, the percentage of those who are residential, the number of subscribers who purchase the service in conjunction with the purchase of a broadband connection and, of those, the types of connections purchased. The Commission also required interconnected VoIP service providers to report the percentage of subscribers who can use the service over any broadband connection and to report a list of five-digit ZIP codes within each

state in which they have at least one subscriber. The Commission determined that terrestrial mobile wireless broadband service providers would continue to submit their broadband subscriber totals on a state-by-state basis, rather than by census tract, and list the census tracts that “best represent” their broadband service footprint for each speed tier they offer.

11. 2008 Further Notice. In the 2008 Further Notice of Proposed Rulemaking, the Commission sought comment on several matters, including whether it should collect information on actual speeds of broadband services; how generally to maintain the confidentiality of broadband data; whether the Commission should conduct and publish periodic consumer surveys on broadband services; and whether and how to institute a national broadband availability mapping program. The Commission tentatively concluded that it “should collect information that providers use to respond to prospective customers to determine on an address-by-address basis whether service is available.”

12. National Broadband Plan. The National Broadband Plan emphasized the necessity of “continuous collection and analysis of detailed data on competitive behavior” and the need for the Commission to conduct “more thorough data collection to monitor and benchmark competitive behavior.” The Plan also recommended that the Commission “revise Form 477 to collect data relevant to broadband availability, adoption and competition.”

13. 2011 Notice of Proposed Rulemaking. On February 8, 2011, the Commission released a Notice of Proposed Rulemaking (NPRM) seeking comment on whether and how to reform the Form 477 data program to improve the Commission’s ability to carry out its statutory duties, while also streamlining and minimizing the overall costs of the program, including the burdens imposed on providers. Today’s Order addresses issues that were first raised in WC

Docket Nos. 07-38, 08-190, and 10-123 that relate to the Commission’s data programs. Given the changes that the industry has experienced since the 2008 Broadband Data Gathering Order and Further Notice, the increased focus on broadband issues by the Commission and Congress, and the administrative efficiencies that will result from consolidating these issues in a single docket, the Commission incorporated the comments and ex parte presentations of WC Docket Nos. 07-38, 08-190, and 10-123 into new docket WC Docket No. 11-10. The Commission sought comment on the collection of five specific categories of data—deployment, price, subscription, service quality and customer satisfaction, and ownership and contact information—asking whether and how to collect such data and seeking comment on the Commission’s authority to do so. This Order addresses the collection of deployment data, subscription data, and company identification and contact information. We do not address the collection of price data or service quality and customer satisfaction data at this time, and those issues remain open for consideration. The NPRM also sought comment on the use of third-party data, which entities should be required to report, and the frequency of reporting.

B. Uses of Form 477 and SBI Data

14. Data collected through Form 477 and NTIA’s SBI program play an essential role in the Commission’s work: we use these data to meet our statutory obligation to assess annually the state of broadband availability, update our universal service policies and monitor whether our statutory universal service goals are being achieved, and meet our public safety obligations. We also make the data available to states, researchers, and the public to inform their own activities and decisions regarding voice and broadband networks and services.

15. Many of these obligations flow directly from statute. Significantly, the Broadband Data Improvement Act (or BDIA, which built on section 706 of the Telecommunications Act of

1996) requires that the Commission conduct an annual inquiry concerning the “availability of advanced telecommunications capability to all Americans.” As part of this inquiry, the Commission must “determine whether advanced telecommunications capability is being deployed to all Americans in a reasonable and timely fashion.” If the Commission’s conclusion is negative, it must “take immediate action to accelerate deployment of such capability by removing barriers to infrastructure investment and by promoting competition in the telecommunications market.” The Commission has observed that the data collected on Form 477 to date have been imperfect for the purpose of assessing broadband deployment and availability. Prior to the 2012 Eighth Broadband Progress Report, the Commission used Form 477 broadband subscription data as a proxy for fixed broadband deployment. Subscription data are a highly imperfect proxy for network deployment. Deployment may be understated if no household in an area has chosen to subscribe to a service offering provided by a network, for example, and capability may be understated if no household has subscribed to the highest speed offering. Because of the limitations of Form 477 subscription data, in the 2012 Eighth Broadband Progress Report, the Commission relied solely on NTIA’s SBI deployment data to assess broadband deployment. The Commission also calculated, for the first time, fixed broadband adoption rates using both Form 477 subscription data and SBI deployment data.

16. Deployment and subscription data are also needed to fulfill our universal service mandate. The Communications Act of 1934, as amended, requires the Commission to base its universal service policies on a number of principles, including that “[c]onsumers in all regions of the Nation, including low-income consumers and those in rural, insular, and high cost areas, should have access to telecommunications and information services . . . that are reasonably comparable to those services provided in urban areas.” The Commission currently relies on SBI

data for a number of universal service policies. For example, the Commission has relied on the SBI data to determine areas eligible for support in Connect America Phase I, and has stated that it will rely on SBI data for determining areas eligible for support in Connect America Phase II. In addition, the Commission has sought comment on using SBI data to determine areas eligible for the Remote Areas Fund. Over time, the Commission's reliance on the SBI data to support its universal service policies will transition to reliance on data collected on Form 477. Thus, the data collected on Form 477 are critical to measuring whether we are meeting our universal service mandate.

17. Accurate, detailed data about deployment and subscription also help further the Commission's public safety goals. In disaster situations, for example, we use these data to identify service providers likely to be affected and alternative sources of critical communications. The collection of deployment and subscription data help the Commission monitor the performance of both legacy circuit-switched networks and broadband networks, to ensure that consumers can access emergency services as service providers transition from one technology to the other.

18. Moreover, in addition to the Commission's use of the data, there have been tremendous public interest benefits to other federal and state agencies and the general public from the FCC's and NTIA's data collections. Use of the National Broadband Map application, and access to the data via download or Application Programming Interfaces, has been extensive. The Federal Geographic Data Committee highlighted the success and use of the data in its annual report. The Homeland Infrastructure Foundation Level Working Group has consistently used the broadband deployment data as part of its 17-sector critical infrastructure data asset, and the National States Geographic Information Council have an active working group set up to address

the National Broadband Map. Researchers have used these data to address a range of technical and social issues on the communications landscape. Finally, consumers and policy makers alike are more informed about deployment with the open access to data that the National Broadband Map provides, as a recent case study by the Wilson Center made clear.

19. We provide state public utility commissions with access to disaggregated Form 477 subscribership data, provided the commissions have appropriate confidentiality protections in place. Additionally, pursuant to section 106(h)(1) of the Broadband Data Improvement Act, the Commission provides State Broadband Data and Development grant recipients (“eligible entities” under the BDIA) with access to “aggregate” Form 477 subscribership data to support the activities that are funded through the State Broadband Data and Development Grant Program. The data are available to help eligible entities identify and track areas in each state that have low levels of broadband service deployment, and identify barriers to adoption of broadband service by individuals and businesses.

III. DISCUSSION

20. The Commission is committed to meeting its obligations through decisions that are supported by current, reliable data. In the NPRM, the Commission sought comment on a number of proposals to improve and streamline the Form 477 collection process. As discussed below, we conclude that we should revise our Form 477 collection to include data on deployment of fixed and mobile broadband networks and mobile voice networks, as well as company identification and emergency contact information. We will not require providers to submit broadband deployment data in predetermined speed tiers, and we eliminate the use of speed tiers for broadband subscription data. Instead, we require providers of broadband services simply to provide advertised speeds: the maximum advertised speed for fixed broadband and the

minimum advertised speed for mobile broadband. Streamlining the collection in this manner will give the Commission greater flexibility to group and analyze broadband speed data in useful ways. We do not make any changes to the categories of providers that are required to file Form 477.

21. Shortly after release of this Order, the Wireline Competition Bureau will release a data specification that reflects the changes necessary to implement this Order. As they have with every previous revision of Form 477, Wireline Competition Bureau staff will work with providers to ensure that the providers have the tools they need to complete and file the form in the least burdensome manner possible. We delegate authority to the Wireline Competition Bureau, in consultation with the Wireless Telecommunications Bureau, to implement any technical improvements or other clarifications to the filing mechanism and forms that will make compliance easier for filers.

A. Deployment Data

22. The NPRM sought comment on whether voice and broadband deployment data are necessary to fulfill a number of the Commission's statutory and policy goals. Based on the record before us, we conclude that it is in the public interest for the Commission to collect data on deployment of fixed and mobile broadband networks and mobile voice networks. As noted above, many commenters agree that we should collect deployment data in order to help meet statutory obligations.

23. We continue the important collection of deployment data initiated by NTIA's SBI program and make modest but important adjustments to that collection. We will collect data on where people have access to broadband service (what locations have services available), as well

as the nature of the broadband services offered in those areas (for example, the speed and technology of the offering). As noted above, most providers have already been submitting deployment data through NTIA's SBI data collection process, but such collection will end next year. The changes we adopt to the SBI collection are designed to reduce filing burdens and increase reliability of the data. For example, the collection will occur in a single, unified process rather than on a state-by-state basis. A single, nationwide filing (that includes both deployment and subscription data) will help eliminate potential variations among states, and reduce to one the number of entities with which a multistate provider must coordinate for its filing. In addition, the elimination of speed tiers will reduce burdens associated with categorizing data into those tiers. The data will also be more reliable because all providers must file, and must certify to the accuracy upon filing. In short, and as we describe more fully below, the collection is carefully tailored to provide the Commission the data it needs to fulfill its mission, while taking steps to minimize the burden on filers. As a result, we expect that communications providers' overall reporting burden will decrease even though the Commission will be collecting more data.

1. Collection of Broadband Deployment Data

24. Our collection of deployment data will differ in some ways from NTIA's SBI data collection in order to ensure that these data will support our efforts to fulfill statutory directives and policy goals. We make several modest but important improvements to enhance the reliability and usefulness of the data. First, under the SBI collection, providers submit data to the states, so there may be as many as 56 different methodologies for collecting SBI data. The Form 477 collection will be a single, uniform filing for all providers, which will reduce potential for distortion or misleading comparisons of the data. A national system should also reduce the burden on multistate filers, who today must often file their deployment data in different ways

with different entities. Second, submission of data for NTIA's SBI program is voluntary; the Form 477 filing is mandatory and requires filers to certify that the data are accurate, which will promote complete and accurate data. Third, the SBI does not routinely separate residential from business data. The Form 477 deployment collection will require filers to distinguish, where appropriate, between residential and nonresidential deployment. This will help the Commission to better estimate the level of competition in a market and the number of providers that compete for a particular class of customers. Fourth, the SBI program collects data by speed tiers that differ from the speed tiers the Commission uses to collect subscription data. We eliminate the use of speed tiers for both deployment and subscription data, thus ensuring that speed data are reported consistently across the collection. Fifth, the Form 477 collection will include information on the type of network technology deployed and spectrum bands used for mobile broadband deployment, which will refine our analysis of broadband deployment and spectrum utilization. Finally, Form 477 will not collect existing portions of NTIA's SBI data collection that are not essential to the production of the National Broadband Map, including subscriber-weighted average speeds by county.

25. Some commenters argue that the Commission need not collect broadband deployment data at this time because broadband deployment and availability information is available through NTIA's SBI data collection, which is made available through the National Broadband Map. As noted above, NTIA's SBI collection of deployment data is scheduled to expire in 2014; given the critical role such data play in meeting the goals of Congress and the Commission, it is our responsibility to ensure that no gap exists in the collection of these data. We are, however, designing the transition such that it will likely include one overlapping collection: we anticipate that our first collection of deployment data on Form 477 will take place

in September 2014, for data as of June 30, 2014. An overlapping collection helps us ensure that our own collection systems are functioning properly by allowing us to cross-check our results against NTIA's. More than one overlap would provide us greater assurance, but would also increase the burden on filers, which we are striving to minimize. In any event, the Commission is likely to rely heavily on SBI data collected in the overlap collection, as the SBI collection is more settled and providers may still be adjusting to the revisions to Form 477.

26. We disagree with commenters who argue that the BDIA, which revised section 706, specifies that the collection of broadband deployment data needed to meet the requirements of section 706 should be accomplished through periodic surveys and reliance on Census Bureau data. While the BDIA makes mention of these tools, section 706 does not identify these tools as the sole source of data for meeting our statutory responsibilities. Nor does section 706 preclude the Commission from seeking broadband data from service providers. Furthermore, whereas the section 706(a) inquiry involves broadband deployment and availability, the consumer survey is focused on "the national characteristics of the use of broadband service capability," and the Census data focus exclusively on subscribership. Thus the consumer survey and Census Bureau data alone are insufficient to complete the section 706(a) inquiry. Finally, the deployment data that will be reported on Form 477 are not used by the Commission solely to fulfill its duties under section 706. As explained above, we use these data to meet other statutory obligations as well. We have evaluated existing data sources, and we believe that the changes to the Form 477 data collection that we adopt today represent the least burdensome means of obtaining the data the Commission needs to fulfill its statutory duties.

27. We also disagree with commenters who assert that data already collected on Form 477, in conjunction with data available from Mosaik and other sources, including providers'

websites, are sufficient to inform the Commission about the expansion of broadband networks. While we do use commercial data routinely, we do not agree, in this case, that reliance on third-party deployment data will meet our needs. Among the problems the Commission faces in using commercial data are restrictions on reuse and publication of the data on which the Commission would rely. In addition, the Commission found in the 2012 Eighth Broadband Progress Report that while Mosaik data provide a useful tool for measuring developments in mobile broadband deployment, they may overstate the extent of mobile broadband coverage. Furthermore, because Mosaik reports advertised coverage as reported to it by mobile wireless providers, each of which may use a different standard for determining coverage, the Mosaik data are not consistent across geographic areas and service providers. Finally, tracking down deployment information on providers' websites would not provide consistent data for analysis, would be time consuming, and might not be comprehensive. The information on providers' websites is not certified and is generally not available in a format consistent enough to provide the level of geographic granularity the Commission requires.

28. We find that it is necessary for the Commission to collect nationally standardized deployment data from all providers of broadband and mobile voice services to meet our obligations to assess the state of broadband availability, update our universal service policies and monitor whether our statutory universal service goals are being achieved, and meet our public safety obligations. Satellite broadband providers urge the Commission to exempt them from any required reporting of deployment information on Form 477, arguing that it would be redundant because the extent of a satellite broadband provider's coverage area is already a matter of record as part of a satellite application or letter of intent. Although the Commission requires space station applicants to provide predicted antenna gain contour(s) for each satellite transmit and

receive beam, the antenna gain contour is part of the general description of the satellite's capabilities and is not the same as deployment information. Without a comprehensive, uniform dataset with which to evaluate the state of broadband deployment by all providers, the Commission's analyses will be incomplete. This is particularly important given the difference in speed and capacity offered by different generations of satellites and their different service areas. Accordingly, we will require satellite broadband providers, in addition to all providers of broadband and mobile voice services, to submit deployment data on Form 477. For purposes of Form 477, satellite voice and broadband providers are treated as fixed voice and broadband providers.

29. We continue our current practice of requiring all providers to submit relevant data. While we recognize that submitting any information imposes burdens, which may be most keenly felt by small providers, we conclude that the benefits of having comprehensive data substantially outweigh the burdens. One of the primary objectives of Form 477 is to inform the Commission's efforts to encourage broadband deployment on a reasonable and timely basis to all Americans. We would miss important data relevant to this objective if we were to exempt small providers, which are likely to serve rural or insular areas of the United States, where barriers to deployment are typically the highest. Additionally, obtaining this information from small and rural providers helps ensure that Connect America Fund support is indeed increasing broadband deployment and will help the Commission keep its universal service policies appropriately tailored over time. At the same time, we are cognizant of the burdens of data collections. We therefore have taken steps to minimize burdens, including by making our deployment collection consistent, to a large extent, with NTIA's SBI data collection. For all of these reasons, we

conclude that the benefits of collecting deployment data outweigh the burdens on small providers that may be associated with collection of these data.

30. State Expertise in Broadband Deployment Collection. As described above, our collection of broadband deployment data will be similar—although not identical—to NTIA’s current SBI program collection of broadband deployment data. The filing mechanisms for the two collections, however, will differ significantly. Notably, in NTIA’s SBI data collection, providers file their data with state entities, rather than directly with the federal government.

31. While we believe that filing deployment data with a single agency, rather than with as many as 56 separate entities, should make the mechanics of submitting deployment data less burdensome for filers, we also recognize that as a result of the SBI collection, the states have gained valuable experience with the collection of broadband deployment data. Indeed, many states have created new offices or agencies focused on broadband deployment issues, or tasked existing offices with such duties, and they potentially continue to play an important role in broadband issues. We encourage providers to continue to work with states on broadband issues. In addition, while the states will no longer participate directly in the collection and collation of broadband deployment data, there may be another role the states might play, such that the Commission, other government agencies, industry, and consumers continue to benefit from their expertise. We therefore direct the Wireline Competition Bureau to explore ways in which we might use the states’ expertise to strengthen our own collection of broadband deployment data.

a. Fixed Broadband

32. We require each facilities-based provider of fixed broadband service to provide a list of all census blocks in which it makes broadband service available to end users. As noted

above, for purposes of Form 477, satellite broadband service providers are considered to be providers of fixed broadband service. Facilities-based providers of fixed broadband service will also be required to report the maximum speed offered in each census block where they offer service, breaking out reporting for residential and nonresidential services where appropriate, and by technology. We delegate authority to the Wireline Competition Bureau to determine whether the categorization of fixed-location technologies in the current Form 477 is adequate for collecting deployment information and to specify different categories if necessary.

33. Geographic Area. Based on the record, we conclude that we should continue the SBI's practice of collecting fixed broadband deployment data by census block, but discontinue disparate treatment of census blocks larger than two square miles. Several commenters agree that deployment data should be collected at this geographic level. We disagree with commenters who assert that reporting by census block is too burdensome. We find that reporting by census block will not be unduly burdensome for the majority of fixed broadband service providers, as many of these providers already voluntarily report deployment data by census block to NTIA's SBI program. Fixed broadband providers have, since June 2010, submitted the characteristics of their broadband deployment by census block to state mapping designees.

34. We recognize that the Commission currently collects fixed broadband subscription data by census tract, whereas we will collect fixed broadband deployment data by census block. Some commenters assert that the Commission should collect both deployment and subscription data at the same geographic area level. While we recognize that there may be benefits to collecting deployment and subscription data at the same geographic level, we find that continuing with the SBI collection's level of granularity for deployment data offers us opportunities for analysis at roughly the same or lesser burden to filers that they experience now.

Therefore, we find that, on balance, the benefits of retaining the census block collection for deployment data, even while subscription data are collected at a more aggregated level, outweigh the burdens and the disadvantages of an asymmetrical collection.

35. At this time, we decline to gather fixed broadband deployment data at a level more granular than the census block because the added complexity and burden are unlikely at this time to provide a significant insight into how many residences and businesses lack access to service. Although some commenters advocate for address-level reporting, many providers do not maintain broadband network deployment data on an address-by-address basis. Also, rural areas where networks are deployed may not have “street” addresses assigned. We are not persuaded that the benefits of requiring address-level data would outweigh the overall increase in the filing burden. We acknowledge that NTIA’s SBI program collects address- and/or street-segment data for fixed broadband service in particular census blocks—those larger than two square miles. Not only do we not expand this requirement to other census blocks, but we remove it for large blocks as well, thus reducing the burden on filers that serve large blocks. While there are approximately 6.2 million populated census blocks, there are approximately 118.1 million households, approximately 133.3 million housing units, and millions of business locations in the United States. Thus, moving from census block to address-level reporting could lead to a significantly higher burden. In addition, while there is a definitive source for the location and size of census blocks (the U.S. Census Bureau), there is no similar source for the location of all homes, making it substantially harder to map provider submissions and relate those to end-user locations. Some commenters point out that accuracy may actually decrease when granularity increases to the address level because all service providers do not necessarily record addresses in a standardized, uniform manner. We conclude that requiring providers to report fixed broadband deployment

data by census block appropriately balances the burdens of reporting this information to the Commission with the level of granularity required to carry out our statutory duties.

36. Speed data. Instead of defining speed tiers for the reporting of fixed broadband deployment data, as the SBI collection does, we will require filers to provide the maximum advertised speed for each technology used to offer service in each census block. For consistency in our collection, we adopt the same approach for subscription data, which will also reduce filing burdens by avoiding the need to categorize the same service offering differently for deployment and subscription collections.

37. Relevant speeds and broadband technologies evolve over time. As a result, the Commission has found it necessary in the past to revise the speed tiers it uses to collect data. Speed tiers may be revised for a variety of reasons, including reflecting modern service offerings for purposes of assessing broadband availability in the Commission's broadband progress reports and reflecting Connect America policies and requirements. But when broadband providers assign their services a specific speed tier, any changes to those tiers are significantly delayed until the providers report, and the Commission publishes, data sorted into the revised tiers. In addition, changes to the speed tiers limit the Commission's (and others') ability to analyze data over time by potentially removing tiers that had been used previously. We believe that requiring the submission of maximum advertised speed per census block, rather than requiring filers to organize their deployment data into speed tiers before submitting it, will increase the usefulness of the data by allowing the Commission to define speed tiers as needed for its purposes, without requiring modifications to the form itself. It will also allow the Commission and others to analyze speeds over time without regard to the categories of speed into which providers reported

in past years. Finally, we believe that not requiring providers to categorize their offerings into our tiers will reduce their reporting burden.

38. For fixed broadband deployment data, we also tailor our treatment of speed reporting to reflect how services are offered to residential and nonresidential consumers. For residential broadband deployment, as with the SBI collection, Form 477 will collect the fastest advertised speed providers offer potential subscribers in each census block covered by their deployment. For nonresidential broadband deployment, the form will collect the maximum contractual committed information rate offered on nonresidential Internet access services. Form 477 will require filers to distinguish between residential and nonresidential deployment where appropriate. Accordingly, to the extent that a provider does not make the distinction in its filing between residential and nonresidential deployment, it will not distinguish between advertised and contractually committed speeds.

39. Advertised vs. Actual Speeds. The Commission currently collects data on advertised speeds. The Commission sought comment on whether it should continue to collect data only on advertised speeds, or whether, for example, providers should provide information about actual speeds by geographic area, or speeds that extend beyond the access network (for example, end-to-end speeds that reflect an end user's typical Internet performance). We conclude that it is not appropriate or feasible to collect actual speed information from broadband providers via Form 477. Many commenters expressed concern because there is no way for providers to report actual speed information in a meaningful way. Commenters explain that the collection of these data is a highly complex, time consuming, and expensive undertaking that requires the use of specialized equipment in the providers' networks and at their customers' premises. As the Commission found in 2008, "the record of this proceeding does not identify a

methodology or practice that could be applied, consistently and by all types of broadband filers, to measure the information transfer rates actually observed by end users.” We continue to believe that conclusion is correct.

40. The Commission has undertaken a program to measure actual speeds directly for a sample of end users of fixed broadband, and is considering a similar program for mobile broadband. These initiatives are more cost effective than using the Form 477 data collection for this information, and have produced speed information useful to policymakers, consumers, and other stakeholders. In August 2011, the Commission released a report on actual broadband speeds, based on data submitted by broadband providers and end-user volunteers. The report established for the first time that the majority of residential wireline broadband consumers are receiving performance close to the level advertised by their providers. It also identified providers that fell short of advertised speeds. On July 19, 2012, the Commission’s Office of Engineering and Technology and Consumer and Governmental Affairs Bureau released the Second Measuring Broadband America Report. The Second Measuring Broadband America Report found “striking across-the-board improvements on key metrics underlying user performance.” In particular, the Second Measuring Broadband America Report found that Internet service provider (ISP) promises of performance are more accurate, providers are more consistent in their ability to deliver advertised speeds, and consumers are subscribing to faster speed tiers and receiving faster speeds. Further, the Commission is considering questions concerning the types of metrics for speed or other performance characteristics that could prove useful to consumers. We expect to continue our efforts to improve the availability of information describing broadband performance in the United States.

41. As an alternative to requiring the reporting of actual speeds, the Commission sought comment in the NPRM on whether it should collect data on contention ratios (the ratio of the potential maximum demand to the actual bandwidth available) or some other measure of network congestion. In response, Free Press asserts that contention ratios are a useful proxy for actual speeds because they reflect the degree to which customers share capacity, and thus the level of oversubscription on a local network. However, several commenters dispute the usefulness of contention ratios, asserting that a contention ratio “would mean nothing to the typical consumer and little, if anything, to most policymakers,” and that given the many variables that would go into determining a contention ratio, “the resulting data are unlikely to be of any practical use or relevance.” These commenters assert that a requirement to report contention ratios would be complex and burdensome, as there is no single “contention ratio” applicable to a given subscriber or network because broadband traffic traverses numerous segments in a network, each of which has a different contention ratio. Although we believe that understanding network capacity and congestion concerns is useful, we agree that it would be impractical to collect such data through Form 477. We agree with those commenters who argue that the burden of calculating contention ratios would, at this time, outweigh any useful benefits that the Commission might glean from such information. We thus decline to require providers to report contention ratios.

b. Mobile Broadband

42. As with fixed broadband, we continue NTIA’s SBI collection of mobile broadband coverage areas, with certain modifications to reduce burdens while improving the data to fulfill our statutory purposes and policy goals. These modifications include additional technology codes, separation of coverage areas by unique combinations of technology, spectrum and speed,

and minimum, rather than maximum, advertised speed. Specifically, for each mobile broadband network technology (e.g., EV-DO, WCDMA, HSPA+, LTE, WiMAX) deployed in each frequency band (e.g., 700 MHz, Cellular, AWS, PCS, BRS/EBS), facilities-based mobile broadband providers should submit polygons representing the nationwide coverage area (including U.S. territories) of that technology. The data associated with the coverage area should depict the coverage boundaries where, according to providers, users should expect the minimum advertised upload and download data speeds associated with that network technology in that frequency band. If a provider advertises different minimum upload and download speeds in different areas of the country using the same technology and frequency band (e.g., HSPA+ on AWS spectrum), the provider should submit separate polygons showing the coverage area for each speed. If a provider does not advertise the minimum upload and/or download speeds, the provider must indicate the minimum upload/download data speeds that users should expect to receive for the deployed technology in the given frequency band.

43. Collecting these deployment data on mobile broadband network technologies, in conjunction with data on spectrum and minimum advertised speeds, will improve the data needed to fulfill our statutory purposes and policy goals. As with fixed broadband deployment data, we direct filers to report data on advertised speeds and reduce the burden of associating these speeds with predetermined speed tiers. To reduce burdens, we also allow mobile broadband providers to submit coverage maps on a nationwide rather than state-by-state basis. To reflect changes in both Geographical Information Systems (GIS) and mobile technologies and spectrum bands used over time, the Wireline Competition Bureau, in consultation with the Wireless Telecommunications Bureau, will update coverage resolution, network or transmission technologies and spectrum bands used on Form 477 as necessary.

44. Currently, the Form 477 collection requires facilities-based mobile wireless broadband service to submit data indicating census tracts in which “service is advertised and available to actual and potential subscribers,” and such service offerings must be grouped into predetermined speed tiers. We retain this collection while taking measures to reduce the burden by eliminating the requirement that providers group their offerings into speed tiers. These data remain necessary to determine accurately mobile broadband service availability in cases where a provider’s mobile network deployment footprint differs from its facilities-based service footprint, that is, where service is advertised and available to actual and potential subscribers. Deployment and availability are often the same for providers but, in some instances, they are not. The combination of data on network deployment, service availability, and subscription will assist the Commission in a number of analyses, including those in the Broadband Progress Reports and Mobile Wireless Competition Reports, the state of competition in the mobile wireless industry, and review of mergers and spectrum transactions.

45. The mobile broadband deployment data, in conjunction with similar data on mobile voice deployment, will enable the Commission to analyze the extent of deployment in different spectrum bands, and technologies. These data will enable us to analyze deployment in different spectrum bands, and to structure our spectrum, infrastructure, and competition policies effectively and efficiently in a rapidly evolving mobile marketplace. The National Broadband Plan states that mobile broadband is poised to become a key platform for innovation in the United States over the next decade. For mobile service deployment, spectrum is an essential input as the transmission pipe. Understanding how spectrum bands and technologies have actually been deployed in different areas will greatly facilitate the formulation of sound and informed spectrum policies, including how best to make additional spectrum available for licensed, unlicensed and

opportunistic uses. The mobile broadband deployment data, indicating speed, technology, and spectrum band used, will enable us to better assess the wireless marketplace to ensure that our spectrum and competition policies accommodate growing demand and evolving technologies in the provision of mobile broadband services.

46. Today, NTIA's SBI collection includes information on speed and spectrum used for the provision of wireless broadband services. Spectrum information, however, is not clearly linked to coverage boundaries. Defining the standard for reporting network coverage boundaries that reflect the broadband speeds of a deployed technology in a given frequency band will ensure that we have consistent and comparable deployment data by various providers. Collecting spectrum information in this manner also will give us better information on the actual use of spectrum bands, enabling informed spectrum management policies.

47. Certain commenters argue that other sources of data on spectrum use are already available to the Commission and that the collection of spectrum data through Form 477 is unnecessary. However, the sources cited by commenters, including the Spectrum Dashboard and license build-out notifications, are insufficient for analyzing deployment by technology and by band. The Spectrum Dashboard provides information on spectrum holdings but not the extent to which providers are using their spectrum to deploy networks and offer services. The licensee build-out notifications do not indicate the type of service or technology deployed, are filed infrequently, and in some cases, are not a reflection of networks that are being used to offer service. Sprint suggests that the Commission could ask providers to respond on an ad hoc basis to inquiries about their spectrum use in particular areas. However, this method would not provide us with the complete set of data necessary to perform the comprehensive analyses described above.

48. We find that burdens on mobile wireless providers associated with providing digital representations of and geospatial data on their network coverage areas are not significant, and are outweighed by the public interest benefits associated with our collection. The geospatial data we are collecting on spectrum and technology are used by mobile service providers for radio frequency (RF) network design and are an integral part of every mobile service provider's ordinary course of business. Accordingly, mobile deployment data by spectrum bands and network technology should be readily available to mobile service providers given that any mobile network deployment plan would include both the spectrum and the network technology to be used for such deployment.

49. In addition, many providers develop and maintain such data in order to publish maps of their coverage areas on their websites and in other promotional materials, and certain operators have provided network coverage boundaries to Mosaik. Certain providers also have submitted coverage area boundaries to the Commission as part of wireless transaction proceedings, and many providers have submitted coverage area boundaries in the SBI data collection. There are multiple GIS (Geographical Information Systems) platforms capable of creating and managing geospatial data on mobile network coverage areas, and there are many GIS specialists and engineering consultants in the United States who are able to provide expertise and develop such data for providers that do not have internal GIS resources.

50. In the NPRM, the Commission sought comment on how any reporting should account for the variability of signal strength and capacity in a network that includes mobile users. The record indicates that measuring signal strength is a complex and time-consuming endeavor due in significant part to the extreme variability in the propagation and reception of wireless signals. The strength of the signal received by any given subscriber can be affected by a broad

range of factors, including topography, foliage, weather, type of structure for in-building reception, the number and behavior of other subscribers connected to the same cell site, and whether and how fast the subscriber is moving through the cell site's coverage area. As a result, mobile signal strength, speed, and capacity measurements can change from minute to minute or between locations. While the data would be valuable, we are not convinced that there is a practical, reliable way at this time to assess signal strength and capacity through a standardized data collection. We therefore decline to revise Form 477 to require providers to account for these variables.

2. Collection of Voice Deployment Data

a. Fixed Voice

51. In the NPRM, the Commission sought comment on whether the collection of fixed voice network deployment data is warranted. The national telephone subscription rate has remained high over the last decade, indicating expansive (indeed, nearly ubiquitous) availability of service. The Wireline Competition Bureau recently collected data on the areas served by incumbent local exchange carriers through the Study Area Boundary Data Collection, and these boundaries typically show the area that an incumbent LEC is obligated to serve with fixed voice service. For other fixed providers, we will be able to infer voice availability from their fixed broadband deployment data, as many providers offer both voice and broadband over the same network. Collecting additional fixed voice network deployment data on Form 477 would be largely redundant and would impose an additional burden on voice providers. Therefore, we will not require providers of fixed voice services to report deployment data on Form 477.

b. Mobile Voice

52. We will require facilities-based mobile wireless voice providers to submit geospatial data of their coverage area boundaries. Unlike fixed voice availability, which, as we explain above, is relatively stable, the combination of footprint, technology, and spectrum for mobile voice services is changing more rapidly. Collecting mobile voice deployment data therefore provides significant public interest benefits that outweigh the burdens associated with the collection. In any event, we find that requiring mobile wireless providers to submit their coverage area boundaries will not add a significant burden.

53. Providers should submit polygons representing geographic coverage nationwide (including U.S. territories) by transmission technology (e.g., GSM, CDMA, HSPA, VoLTE) and by frequency band (e.g., 700 MHz, Cellular, PCS, AWS). For example, if a provider offers both GSM and CDMA voice services in both the Cellular band and the PCS band, then this would result in four different polygons: (1) GSM in the Cellular band; (2) CDMA in the Cellular band; (3) GSM in the PCS band; and (4) CDMA in the PCS band. The polygons should represent voice coverage boundaries where providers expect users to be able to make, maintain, and receive voice calls. To reflect changes in both GIS and mobile technologies, and spectrum bands used over time, the Wireline Competition Bureau, in consultation with the Wireless Telecommunications Bureau, will update coverage resolution, network or transmission technologies, and spectrum bands used on Form 477.

54. As discussed above, the Spectrum Dashboard and license build-out notifications are insufficient for analyzing deployment. The Spectrum Dashboard or the licensee build-out notifications do not indicate the type of service or technology deployed, are filed infrequently, and in some cases, are not a reflection of networks that are being used to offer service. The

Commission currently licenses a dataset from a commercial source, Mosaik, for data on mobile voice network deployment. Mosaik provides coverage boundary maps for every facilities-based mobile wireless provider and each mobile network technology a provider has deployed, including those networks used to provide mobile voice service. However, Mosaik reports advertised coverage as reported to it by many mobile wireless operators, each of which may use a different definition of or standard for determining coverage. Therefore, the data are not consistent across geographic areas and service providers. In addition, the Mosaik data do not capture any information about the spectrum bands that operators use for mobile network deployment. Hence, we conclude that the Mosaik data are not sufficient for monitoring mobile voice network deployment and the mobile voice technology transition at this time, and that it is now necessary to collect mobile voice deployment data through Form 477.

55. Accordingly, we will require providers of mobile wireless voice service to end users to submit digital representations, with the associated data discussed above, depicting their mobile voice network coverage areas. These data, in conjunction with similar data on mobile broadband deployment discussed above, will enable the Commission to analyze the extent of deployment in different spectrum bands. It also will help the Commission project market trends and adjust its spectrum and competition policies. We also find that collection of mobile voice deployment data will assist in the Commission's efforts in the areas of emergency response and disaster relief by identifying the providers that typically serve an affected area.

B. Subscription Data

56. Subscription information enables the Commission to fulfill its statutory and regulatory duties. For the past thirteen years, the collection of subscription data via Form 477 has served as the Commission's principal tool for monitoring telephone and broadband

subscriptions and competition. Form 477 subscription data also enable the Commission to evaluate barriers to adoption, administer and reform the universal service program, monitor the PSTN-to-IP conversion by providing insight into how many customers rely on each type of network technology in each area, and better assess which services are purchased independently or in combination with other services. These data also support the Commission's efforts to ensure public safety by providing a measure of what networks and providers customers rely on in each area.

57. Commenters generally support the continued collection of subscription information for voice and broadband services. Indeed, many commenters acknowledge the importance of collecting subscribership data because, for example, "it provides valuable insight for both competition monitoring and public safety purposes, especially because it indicates the degree to which subscribers are reliant upon particular networks for services and E-911 delivery." Because subscription data are necessary to allow the Commission to fulfill its statutory purposes, we continue to collect broadband and voice subscription data. For the reasons set forth below, we revise the subscription data speeds to better reflect current market offerings and improve the Commission's ability to assess broadband deployment and adoption. We also will now collect fixed voice and interconnected VoIP subscription data by census tract.

58. We eliminate questions and requirements on the current Form 477 that require certain broadband providers to report information about the availability of broadband service, as opposed to information about actual subscribership to broadband service. These questions are no longer necessary in light of the new Form 477 collection of broadband deployment data, discussed above. Specifically, we will eliminate Part I.B of the current form, which requires, by state: (1) each incumbent LEC with any DSL connections in service to report its best estimate of

the percentage of residential end user premises in its service area to which its DSL connections could be provided using installed distribution facilities, (2) each cable system with any cable modem connections in service to report its best estimate of the percentage of residential end user premises in its service area to which its cable modem connections could be provided using installed distribution facilities, and (3) each network operator serving any terrestrial mobile wireless broadband subscribers to report the total number of subscribers (i.e., including broadband, broadband plus voice, and voice-only subscribers) whose mobile device is capable of sending or receiving data at information transfer rates exceeding 200 kbps in at least one direction. In addition, we eliminate the requirement that fixed broadband providers submit data for every census tract within their “defined service territory” regardless of the number of subscribers in the tract. By eliminating these questions, we protect against duplication in our collection and reduce the burden on filers by narrowly tailoring our collection of data to those most useful to the Commission.

59. In addition, we eliminate the requirement that broadband providers submit state-level data on the percentage of their connections that are billed to end users and the percentage that are equipped over their own facilities. The Commission typically does not rely on these metrics at this level for competitive analysis, nor has it reported them in its semiannual Internet Access Services reports. Eliminating them would greatly simplify the revised Form 477 and its data collection interface, and would reduce burden for filers.

60. We also modify our current data collection in several ways to eliminate unnecessary information and produce data better suited to competitive analysis. We remove the requirement that providers of local exchange telephone service report the number of lines provided to unaffiliated communications carriers as UNE-Platform (UNE-P). We also eliminate reporting of

the percentage of end-user lines provided over UNE-P. In addition, providers of interconnected VoIP service will no longer be required to report the number of companies purchasing their VoIP components or service for resale. The Commission typically does not rely on this metric at this level for competitive analysis. We also simplify the categories of information interconnected VoIP providers must provide. Currently, the Form requires filers to report the percentage of VoIP subscriptions with nomadic functionality. We find the burdens of this reporting distinction do not outweigh the benefits and so eliminate the nomadic category. Finally, we will require local exchange telephone service providers to report, by state, how many of their access lines are bundled with broadband. This information about bundling can be evidence of consumers' willingness to switch voice service providers, and hence improves our competitive analysis.

1. Speed Data

61. The NPRM sought comment on whether the Commission should reduce the number of speed tiers that broadband providers report, and whether to adopt the same speed tiers for subscription and deployment. We currently collect subscribership data for eight tiers of advertised download speeds and nine tiers of advertised upload speeds, leading to 72 possible combinations.

62. In order to conform our collection of broadband subscription data to the approach we take for broadband deployment data, we eliminate the use of speed tiers for broadband subscription data. Providers will no longer organize broadband subscription data into predetermined tiers. Instead, filers will be required to provide the number of broadband connections by the advertised speeds associated with each product subscribed to in the relevant geographic area. Fixed providers will report connections by the maximum advertised upload and download speeds in each census tract, while mobile providers will report connections by

minimum advertised upload and download speeds in each state. These changes to how we collect speed data will permit the Commission to conduct a consistent analysis of subscription and deployment data and, because they will no longer be required to categorize the number of connections into our speed tiers, will reduce burdens on filers. Despite some commenter assertions to the contrary, we conclude that on balance, there are advantages to having a consistent collection of deployment and subscription speed data. For example, a consistent collection will make the Commission's analysis of broadband availability simpler and more reliable. Moreover, over the long term, unifying the collection of speed data for deployment and subscription will minimize providers' burdens.

63. For the reasons stated above in the section addressing deployment data, we find that it is not appropriate or feasible to collect actual speed information from broadband providers via Form 477 at this time. Accordingly, providers will report subscription speed tier information based on advertised speed.

2. Geographic Area

a. Fixed Voice and Interconnected VoIP

64. Form 477 currently collects fixed voice and interconnected VoIP subscription data at the state level and requires providers of these services to submit a list, by state, of the five-digit ZIP codes in which they provide service to end-user customers. As noted above, for purposes of Form 477, satellite providers of voice services are considered fixed voice service providers. For the reasons set forth below, we will now collect the number of total and residential fixed voice and interconnected VoIP subscriptions by census tract, much like we currently do for fixed broadband subscription data. We will no longer require providers of these services to submit the list of ZIP codes in which they provide service to end-user customers.

65. Collecting fixed voice and interconnected VoIP subscription data by census tract will improve the Commission’s ability to measure and conduct analyses of retail voice competition. We currently collect fixed broadband subscription data by census tract, and consumers often purchase fixed broadband and voice services together. Collecting fixed voice and interconnected VoIP subscription data at the same geographic level as fixed broadband data will allow us to calculate retail market shares for voice services by census tract in most census tracts, and will give us a better understanding of competition in the remainder. The state-level fixed voice and interconnected VoIP subscription data currently collected on 477 are insufficiently granular to provide insight into competition, and, for example, does not enable calculation of retail market shares—even at the state level because providers’ footprints do not cover entire states.

66. Collecting fixed voice and interconnected VoIP subscription data at a more granular geographic level will permit the Commission to analyze subscription patterns for particular populations that are identifiable at the census tract, such as consumers residing in rural areas. Collecting fixed voice and interconnected VoIP subscription data by census tract will also help the Commission analyze fixed voice adoption in rural, insular, and high-cost areas of the country with greater refinement than at the state level, in accordance with the Commission’s universal service policies to ensure that “[c]onsumers in all regions of the Nation, including low-income consumers and those in rural, insular, and high cost areas, . . . have access to telecommunications and information services . . . that are reasonably comparable to those services provided in urban areas.” Further, collecting data for these services by census tract will provide more insight into incumbent local exchange carrier (ILEC) access line loss trends. ILECs frequently point to their overall line losses as justification for regulatory relief. We currently lack data showing the

geographic distribution of these line losses, and whether customers leaving ILECs are going to cable or cutting the cord.

67. We recognize that some fixed voice and interconnected VoIP service providers may not be accustomed to reporting subscription data by census tract and may not currently have the internal capability to associate subscriber addresses with census tracts. However, providers that offer both fixed broadband and fixed voice services already report fixed broadband subscription data to the Commission by census tract, and those who also participate in NTIA's SBI program also report fixed broadband deployment data by census block. Accordingly, many fixed voice and interconnected VoIP service providers already have experience using census data. The burden associated with requiring these providers to file fixed voice and interconnected VoIP subscription data by census tract will likely be small because such providers will be able to leverage existing processes for voice subscriptions. To the extent that filers do not have prior experience using census data, we believe that collecting subscription data for fixed voice and interconnected VoIP by census tract will improve the quality of the data we receive to such a degree that the benefits outweigh any additional burden on providers. As the Commission has explained, census tracts "are more stable and static" than ZIP codes, "correspond more consistently to actual locations, are less likely to reveal individual identifiable information about consumers, and can be correlated with valuable demographic data (including race, income, and education)."

68. Some commenters assert that the Commission should collect both subscription and deployment data at the same geographic area level. Although we recognize that there may be benefits to collecting deployment and subscription data at the same geographic level, we decline to collect subscription data at a level more granular than the census tract at this time. As we have

discussed, collecting fixed voice, interconnected VoIP, and broadband subscription data by census tract provides substantial benefits without unduly burdening filing entities. At the same time, we believe that more granular subscription data would be preferable, if the burden on filers were not significantly increased. If there were no or minimal additional burden to file by census block than by census tract, we would favor collecting subscription and deployment data at the same geographic level.

C. Further Ways to Reduce Form 477 Filing Burdens

69. We are committed to improving the data that the Commission collects even as we continue to explore ways to make the Form 477 filing less burdensome. We therefore direct the Wireline Competition Bureau, in consultation with the Wireless Telecommunications Bureau, to explore technical improvements to the Form 477 filing mechanism that may make the process easier for filers. The Bureaus should explore, for example, whether a client-side software application that would automate for providers some of the potentially burdensome tasks of sorting, formatting, and geocoding their data might reduce the burden of filing Form 477. The Bureaus should test any client-side software application with different filers representing different segments of the industry and obtain their feedback. If, through this process, the Bureaus identify a way to make the filing process less burdensome, we direct the Bureaus to make such software application available to assist filers in complying with the obligations set forth in this Order.

70. In addition to making current filing obligations less burdensome, technical improvements to the filing mechanism may also make it possible to collect more granular data without a significant increase in burden to filers. For example, a software solution may reduce the filing burden sufficiently to justify collecting more granular subscription data. If the

development and testing process described above proves this to be the case, we may consider moving voice and broadband subscription data, for fixed and possibly mobile services, to the census block. Even if the Commission chooses not to collect mobile subscription data by census block, any technical improvements developed to collect fixed subscribership data by census block may be useful in collecting mobile subscribership at another sub-state geography (such as counties) with minimal burden. Technical improvements to the Form 477 filing process may also enable the Commission, in the future, to consider collecting additional data.

D. Company Identification and Contact Information

71. We require entities filing Form 477 to provide additional company identification and contact information. In addition to the current Form 477 requirements, we will require filers to report the company's Universal Service Administrative Company (USAC) study area codes, USAC 499 identification numbers, and website address. We will also require that filers report the title of their certifying official and the name, phone number, and email address of their emergency operations contact. This information will assist the Commission in fulfilling its universal service mandate, evaluating merger, forbearance, and other applications, and protecting public safety.

72. We require additional company identification information for several reasons. The Commission currently allows Form 477 filers to consolidate data for multiple operations within a state on a single submission, and filers are permitted to determine the organizational level at which they submit their filings. As noted in the NPRM, a parent or holding company may file on behalf of its subsidiaries or the subsidiaries may file their own Form 477. Accordingly, we will now require filers to report, in each 477 filing, the company's Universal Service Administrative Company (USAC) study area codes, USAC 499 identification numbers, and website address.

This information enables us to aggregate, compare, and analyze, by a common provider, the various data we collect through different forms and filing requirements.

73. Some commenters assert that additional company identification information is not necessary and will not “meaningfully enhance the Commission’s general understanding of the broadband ecosystem, or its general understanding of the state of local competition.” We disagree. Companies reporting data to the Commission via Form 477 often have multiple relationships with the Commission, and collection of these data would improve our understanding of the ownership and corporate affiliations of voice and broadband providers. In addition, knowledge of common ownership relationships among different operating companies in a region is essential to understanding competition, including conducting merger analyses, as well as ongoing vigilance against waste, fraud, and abuse of universal service funding. The current reporting requirements do not provide a sufficiently clear picture of the interrelationships that may exist among various providers and of the markets for which data are reported.

74. We recognize that the Commission currently collects some company identification information in other contexts. Although these collections do not duplicate the information collection we adopt in this Order—they apply to small subsets of the universe of Form 477 filers and do not request the same level of detail—we nonetheless take precautions to ensure that no entity is burdened with duplicative filings. Accordingly, we direct the Wireline Competition Bureau, in consultation with the Wireless Telecommunications Bureau, to identify any circumstances in which the collection of company identification information on Form 477 may duplicate another Commission collection, and to exempt filers from the latter in those instances.

75. We will also require that filers report the name, phone number, and email address of their emergency operations contact. The information currently collected by Form 477 is not sufficient for use in promptly contacting providers' network operating centers during emergencies. Some commenters support the collection of additional emergency contact information. For example, Qwest states that this information should be collected, since "[e]mergency contact information could be added to Form 477 without placing any material burden on the service providers." However, other commenters argue that Form 477 is not the appropriate vehicle for the Commission to collect this contact information.

76. The Commission needs this emergency operations contact information to fulfill its statutory public safety mandates. The Commission must be able to directly contact individuals who can provide information on network status during natural disasters or other emergencies. As a mandatory, recurring filing by providers of telephone and broadband service, we find that Form 477 will be a particularly effective vehicle for collecting emergency contact data that are comprehensive and current, with a relatively small burden on filers. The Commission currently has no structured, recurring, mandatory collection of contact information in place specifically for use in emergencies affecting telephone and/or broadband networks. The Commission's Disaster Information Reporting System (DIRS) does collect contact information, but only on a voluntary basis for use during large-scale disasters. It is important for the Commission to have contact information from all providers that file Form 477, including those providers that do not choose to participate in DIRS, and that this information is updated consistently.

77. Finally, filers of Form 477 will be required to report the name, title, and contact information of their certifying official. This essential information provides assurance and the

ability to confirm if needed that the certifying official has the authority to certify that the data submitted is accurate and truthful.

E. Disclosure of Data Collected on Form 477

78. NTIA's SBI deployment data are available to the public and have proved to be a valuable resource to academic researchers and federal and state government agencies. While we make no changes to our current treatment of subscription data, we expect that increased public access to disaggregated subscription data could provide similar benefits. The Commission already makes provider-specific subscription data available to state commissions that are able to maintain their confidentiality and to other federal agencies upon request, pursuant to confidentiality conditions. We believe that greater access to the subscription data might be feasible, and beneficial, without compromising competitively sensitive information. Accordingly, we delegate authority to the Wireline Competition Bureau, in consultation with the Wireless Telecommunications Bureau, to explore ways to allow greater public access to Form 477 subscription data, and to increase access to such data if the Bureaus determine, after seeking public comment, that this can be accomplished in a manner that addresses concerns about the competitive sensitivity of the data and precludes public disclosure of any confidential information.

79. Subscription Data. In the NPRM, the Commission sought comment on how best to provide stakeholders with useful data while protecting filers' legitimate confidentiality interests. Specifically, the Commission asked whether it should retain the simple check-box on Form 477 that filers can use to request confidential treatment for data submitted on that form, or whether there are classes of information that should always be considered public. The first page of Form 477 includes a check box that allows providers to request nondisclosure of all or portions of their

submitted data without filing at this point in the process the detailed confidentiality justification required by section 0.459 of our rules. If the Commission receives a request for, or proposes disclosure of, the information contained in Form 477, the provider will be notified and required to make the full showing under section 0.459 of our rules. Based on the record before us, we retain our existing procedures with respect to subscription data. We thus will continue to allow filers to request confidential treatment of their reported subscription data by checking a box on Form 477. At the same time, we recognize that there may be benefits to increasing public access to Form 477 subscription data, and some commenters argue that the public should have access to this information. For now, we find that our current approach appropriately balances the filers' disclosure concerns with the public need for access to this information.

80. While we do not expand public access to Form 477 subscription data at this time, we delegate authority to the Wireline Competition Bureau, in consultation with the Wireless Telecommunications Bureau, to explore ways to allow greater public access to Form 477 subscription data, and to increase public access to such data if this can be accomplished in a manner that addresses concerns about the competitive sensitivity of the data. In particular, in the NPRM, the Commission asked whether the Commission should allow researchers to review disaggregated Form 477 data, consistent with the recommendations of the National Broadband Plan. We direct the Bureaus to develop a plan to enable such access. The Bureaus should propose a definition of "researcher," identify reasonable terms and conditions of access, and define a standard to ensure that sensitive data are not revealed through disclosure by such researchers. The NPRM also sought comment on whether "the passage of time diminish[es] the commercial sensitivity of certain types of data." We direct the Bureaus to develop a process or standard under which the Commission could make disaggregated Form 477 subscription data

available to the public after the passage of a certain period of time (three years, for example), and under what terms or conditions, if any, the data should be disclosed. For example, the Bureau should consider whether historical data should be available only pursuant to protective order, or whether other restrictions on use or publication would be appropriate. If the Bureaus identify ways to increase public access to subscription data while addressing concerns about the competitive sensitivity of the data, we direct the Bureaus to increase public access accordingly.

81. Deployment Data. We are collecting deployment data for the first time and thus must make a determination regarding the confidential treatment of such data. Some commenters argue that this information should be available to the general public. Other commenters make general arguments that all data collected by Form 477 should be given confidential treatment. We believe that deployment data should be made public to at least the same extent as NTIA has been making them public via the National Broadband Map. Unlike subscription data, which may be sensitive vis-à-vis competitors and of relatively low value to the general public, deployment data are very useful to the public, particularly to potential customers that wish to understand and compare their service options. Indeed, many providers make such data available to the public on their web sites.

82. We find that dissemination of deployment data promotes a more informed, efficient market. By allowing public release of as much of the information as possible, associations, scholars, and others will be able to use the information in their independent analyses of Commission policies, thereby aiding the Commission in crafting regulations that address specific market problems and eliminating those regulations that have outlived their usefulness. Finally, making these data available to the public provides consumers, states, and experts the opportunity to review the data to ensure the accuracy of the information. However, we note that mobile

deployment data will include certain specific spectrum and speed parameters that may be used by providers for internal network planning purposes. Filers may request confidential treatment of those specific elements of their deployment data on Form 477. We plan, however, to make the mobile coverage areas by technology and by an aggregated range of speeds available to the public.

83. All other deployment data will be treated as public data. While filers are not precluded from seeking confidential treatment pursuant to the Commission's rules for the deployment data they file, the streamlined check-box option will not apply to the deployment data collected on Form 477. Thus, consistent with our rules, filers seeking confidential treatment of deployment data must submit a request that the data be treated as confidential with the submission of their Form 477 filing, along with their reasons for withholding the information from the public.

84. Company Identification Information. Some commenters argue that all data collected by Form 477 should be given confidential treatment. In this instance, the type of company identification information collected on Form 477 is not competitively sensitive information of the type that the Commission has in the past treated as confidential. Accordingly, we will not limit disclosure of company identification information by allowing filers to check a box on Form 477 requesting confidential treatment of that information. While filers are not precluded from seeking confidential treatment of company identification information pursuant to the Commission's rules, there will be no streamlined check-box option. Filers seeking confidential treatment of company identification information must therefore submit a request that the information be treated as confidential with the submission of their Form 477 filing, along with their reasons for withholding the information from the public.

85. Emergency Contact Information. As noted above, we will now collect the name, phone number, and email address of each Form 477 filer's emergency operations contact. The Commission needs this information to promptly contact providers' network operating centers during emergencies. We agree with commenters that this information is confidential. Accordingly, for the reasons set forth below, we find that these emergency operations contact data are information that should not be routinely available for public inspection. Form 477 is filed securely through an online password protected system. Providers submitting this information on Form 477 will not be required to submit a request for nondisclosure of the emergency operations contact information. Requests for inspection of this information must include a persuasive showing as to the reasons for inspection of the data. When considering such requests, the Commission will weigh the policy considerations favoring nondisclosure against the reasons cited for permitting inspection in the light of the facts of the particular case. We will provide notice to relevant filers of requests to review this information pursuant to the Commission's FOIA rules.

86. We find that emergency operations contact information is confidential and subject to Freedom of Information Act (FOIA) Exemption 4, which protects "trade secrets and commercial or financial information obtained from a person and privileged or confidential." In circumstances in which commercial information is required to be submitted to the government, FOIA Exemption 4 permits us to withhold such records where release would likely cause substantial harm to the competitive position of the submitting party. Communications providers do not make information about how to contact their network operations centers available to the public. Instead, they provide contact information to the public that will not disrupt their network operations. The release of this commercial information to the public would likely result in direct

commercial and financial harm to the providers' business operations. Public disclosure of this information could present an unacceptable risk of disrupting communications providers' operations, including repair operations during communications outages or other emergencies. Network operations centers could be flooded with calls during emergencies when the staff at those centers should be focused on providing or restoring communications services. Interference with a communications provider's work to ensure the continued, robust operation of its communications services would clearly result in commercial harm to business operations.

87. Under FOIA Exemption 4, we are also obliged to consider any adverse impact that disclosure might have on government programs, including the impact on the Commission's ability to implement its statutory responsibility under section 1 of the Act to ensure that communications services are adequate to promote "safety of life and property." Public disclosure of this information would likely result in increased call volume to providers' network operations centers. This could result in potential harm to public safety by interfering with communications providers' network operations and ability to provide communications service. Further, the Commission and other government agencies might be unable to contact network operations centers when needed, adversely impacting their ability to fulfill statutory and other obligations to ensure adequate communications services. Finally, access to providers' emergency operations contact information will not advance the public's interest in learning of Commission actions and communications service providers publicize contact information that does not interfere with their operations. Accordingly, we conclude that this information is sensitive data entitled to confidential treatment and should be exempt from routine public disclosure under FOIA.

IV. LEGAL AUTHORITY

88. The NPRM set out several sources of legal authority that support the proposals to collect additional data, stated that the Commission believed that its authority was sufficient, and sought comment on that conclusion. To the extent that commenters questioned the Commission's authority to collect the types of data required under this Order, we have addressed those comments above. Our authority to adopt this Order and the accompanying rules lies in sections 4(i), 201, 214, 218–220, 251–252, 254, 303(r), 310, 332, and 403 of the Communications Act of 1934, as amended (the Act), as well as section 706 of the Telecommunications Act of 1996. As discussed elsewhere in this Order, for example, these data are important inputs into the annual Broadband Progress Reports required by section 706. Deployment and subscription data are also critical for the Commission to fulfill its responsibilities under section 254, including the requirement that its universal service policies ensure that consumers in all regions “have access to telecommunications and information services, including interexchange services and advanced telecommunications and information services, that are reasonably comparable to those services provided in urban areas,” and is critical to measuring whether we are meeting those responsibilities. As discussed above, we also need deployment and subscription data to further public safety goals. With respect to mobile broadband deployment and subscription data, we also note that such data will help the Commission to carry out its spectrum management related responsibilities under Title III of the Act. To the extent that the Form 477 data collection applies to interconnected VoIP providers, and to the extent that interconnected VoIP services are not telecommunications services, we have both direct authority, as well as ancillary authority, to require the submission of these data based on the necessity of collecting such information in order for the Commission to be able to carry out its statutory obligations with regard to carriers.

V. PROCEDURAL MATTERS

A. Paperwork Reduction Act Analysis

89. This document contains new and modified information collection requirements subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. It will be submitted to the Office of Management and Budget (OMB) for review under Section 3507(d) of the PRA. OMB, the general public, and other federal agencies are invited to comment on the new and modified information collection requirements contained in this proceeding. In addition, we note that pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, see 44 U.S.C. 3506(c)(4), we previously sought specific comment on how the Commission might further reduce the information collection burden for small business concerns with fewer than 25 employees.

90. In this present document, we have assessed the effects of revising Form 477 to collect additional subscription data on fixed voice and interconnected VoIP services; deployment data on voice and broadband services; and company identification and contact information, and find that these collections must be collected from all providers, including small business providers, to be effective in helping the Commission meet its statutory requirements.

B. Final Regulatory Flexibility Analysis

91. As required by the Regulatory Flexibility Act of 1980, as amended, the Commission has prepared a Final Regulatory Flexibility Analysis (FRFA) for this Report and Order, of the possible significant economic impact on a substantial number of small entities by the policies and rules addressed in this document. The FRFA is attached to this item as Appendix C. The Commission will send a copy of this item, including the FRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).

C. Congressional Review Act

92. The Commission will send a copy of this Report and Order to Congress and the Government Accountability Office pursuant to the Congressional Review Act, see 5 U.S.C. 801(a)(1)(A).

VI. FINAL REGULATORY FLEXIBILITY ANALYSIS

93. As required by the Regulatory Flexibility Act of 1980, as amended (RFA), an Initial Regulatory Flexibility Analysis (IRFA) was incorporated into the 2011 Data Gathering Notice. The Commission sought written public comment on the proposals in the 2011 Data Gathering Notice, including comment on the IRFA. The comments received are discussed below. This present Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.

A. Need for, and Objectives of, the Report and Order

94. In this Report and Order (Order), the Commission modifies the FCC Form 477 data collection to streamline the collection and improve the quality of the data collected. Form 477 is the Commission's primary tool for collecting data about broadband and local telephone networks and services. The revisions to the form adopted today will expand and refine the data available to the Commission to fulfill its statutory duties.

95. For the last three years, data on broadband deployment have been collected by the National Telecommunications and Information Administration (NTIA) to populate the National Broadband Map. But NTIA's collection program is nearing its completion. NTIA's State Broadband Initiative (SBI) collection of deployment data is scheduled to expire in 2014; given the critical role such data play in meeting the goals of Congress and the Commission, it is the Commission's responsibility to ensure that no gap exists in the collection of these data. In today's Order, the Commission assumes the responsibility for collection of broadband

deployment data, with some modifications to streamline and reduce the burdens on providers while making other modest improvements. With regard to subscription data, the Commission takes measures to reduce burdens while improving the quality of the data it collects. To enhance its ability to meet public safety needs and obligations, the Commission will collect emergency contact information from providers. Finally, the Commission requires filers to report certain company identification information, which will facilitate transaction reviews, as well as ongoing vigilance against waste, fraud, and abuse of universal service funding.

96. Data about broadband and voice deployment and subscription are essential to the Commission's ability to fulfill its statutory obligations and play a vital public interest role for other state, local, and federal agencies, researchers, and consumers. Data collected through Form 477 and NTIA's SBI program play an essential role in the Commission's work: the Commission uses these data to meet its statutory obligation to assess annually the state of broadband availability, update its universal service policies and monitor whether its statutory universal service goals are being achieved, and meet its public safety obligations. The Commission also makes the data available to states, researchers, and the public to inform their own activities and decisions regarding voice and broadband networks and services.

97. Many of these obligations flow directly from statute. Significantly, the Broadband Data Improvement Act (BDIA) requires that the Commission conduct an annual inquiry concerning the "availability of advanced telecommunications capability to all Americans." As part of this inquiry, the Commission must "determine whether advanced telecommunications capability is being deployed to all Americans in a reasonable and timely fashion." If the Commission's conclusion is negative, it must "take immediate action to accelerate deployment of such capability by removing barriers to infrastructure investment and by promoting

competition in the telecommunications market.” The Commission has observed that the data collected on Form 477 to date have been imperfect for the purpose of assessing broadband deployment and availability, as subscription data are a highly imperfect proxy for network deployment.

98. Deployment and subscription data are also needed to fulfill the Commission’s universal service mandate. The Communications Act of 1934, as amended, requires the Commission to base its universal service policies on a number of principles, including that “[c]onsumers in all regions of the Nation, including low-income consumers and those in rural, insular, and high cost areas, should have access to telecommunications and information services . . . that are reasonably comparable to those services provided in urban areas.” The Commission currently relies on SBI data for a number of universal service policies. For example, the Commission has relied on the SBI data to determine areas eligible for support in Connect America Phase I, and has stated that it will rely on SBI data for determining areas eligible for support in Connect America Phase II. In addition, the Commission has sought comment on using SBI data to determine areas eligible for the Remote Areas Fund. Over time, the Commission’s reliance on the SBI data to support its universal service policies will transition to reliance on data collected on Form 477. Thus, the data collected in Form 477 are critical to measuring whether we are meeting our universal service mandate.

99. Accurate, detailed data about deployment and subscription also help further the Commission’s public safety goals. In disaster situations, for example, the Commission uses these data to identify service providers likely to be affected and alternative sources of critical communications. The collection of deployment and subscription data help the Commission monitor the performance of both legacy circuit-switched networks and broadband networks, to

ensure that consumers can access emergency services as service providers transition from one technology to the other.

100. Moreover, in addition to the Commission's use of the data, there have been tremendous public interest benefits to other federal and state agencies and the general public from the FCC's and NTIA's data collections. Use of the National Broadband Map application, and access to the data via download or Application Programming Interfaces, has been extensive.

101. As discussed below, we will now collect fixed and mobile broadband deployment data. Combining network deployment information with service availability data, as well as subscription information, will assist the Commission in a number of analyses, including the annual broadband progress report, the Annual Mobile Wireless Competition Report, the state of competition in the mobile wireless industry, and review of mergers and spectrum transactions. The mobile broadband deployment data, in conjunction with similar data on mobile voice deployment, will enable the Commission to analyze the extent of deployment in different spectrum bands, and technologies. These data will enable us to analyze deployment in different spectrum bands, and to structure our spectrum, infrastructure, and competition policies effectively and efficiently in a rapidly evolving mobile marketplace. The National Broadband Plan states that mobile broadband is poised to become a key platform for innovation in the United States over the next decade. For mobile service deployment, spectrum is an essential input as the transmission pipe. Understanding how spectrum bands and technologies have actually been deployed in different areas will greatly facilitate the formulation of sound and informed spectrum policies, including how best to make additional spectrum available for licensed, unlicensed and opportunistic uses. The mobile broadband deployment data, indicating speed, technology, and spectrum band used, will enable us to better assess the wireless marketplace to ensure that our

spectrum and competition policies accommodate growing demand and evolving technologies in the provision of mobile broadband services.

102. With respect to mobile broadband, the Commission continues NTIA's SBI collection, with certain modifications to reduce burdens while improving the data to fulfill our statutory purposes and policy goals. These modifications include additional technology codes, separation of coverage areas by unique combinations of technology, spectrum and speed, and minimum, rather than maximum, advertised speed. Specifically, for each mobile broadband network technology (e.g., EV-DO, WCDMA, HSPA+, LTE, WiMAX) deployed in each frequency band (e.g., 700 MHz, Cellular, AWS, PCS, BRS/EBS), facilities-based mobile broadband providers should submit polygons representing the nationwide coverage area (including U.S. territories) of that technology. Collecting these deployment data on mobile broadband network technologies, in conjunction with data on spectrum and minimum advertised speeds, will improve the data needed to fulfill the Commission's statutory purposes and policy goals. As with fixed broadband deployment data, we direct filers to report data on advertised speeds and reduce the burden of associating these speeds with predetermined speed tiers. To reduce burdens, we also allow mobile broadband providers to submit coverage maps on a nationwide rather than state-by-state basis.

103. Subscription information enables the Commission to fulfill its statutory and regulatory duties. For the past thirteen years, the collection of subscription data via Form 477 has served as the Commission's principal tool for monitoring telephone and broadband subscriptions and competition. Form 477 subscription data also enable the Commission to evaluate barriers to adoption, administer and reform the universal service program, monitor the PSTN-to-IP conversion by providing insight into how many customers rely on each type of

network technology in each area, and better assess which services are purchased independently or in combination with other services. These data also support the Commission's efforts to ensure public safety by providing a measure of what networks and providers customers rely on in each area.

104. The Commission will now collect the number of total and residential fixed voice and interconnected VoIP subscriptions by census tract, much like it currently does for fixed broadband subscription data. The Commission will no longer require providers of these services to submit the list of ZIP codes in which they provide service to end-user customers.

105. Collecting fixed voice and interconnected VoIP subscription data by census tract will improve the Commission's ability to measure and conduct analyses of retail voice competition. The Commission currently collect fixed broadband subscription data by census tract, and consumers often purchase fixed broadband and voice services together. Collecting fixed voice and interconnected VoIP subscription data at the same geographic level as fixed broadband data will allow the calculation of retail market shares for voice services by census tract in most census tracts, and will give the Commission a better understanding of competition in the remainder.

106. The Commission requires additional company identification information for several reasons. The Commission currently allows Form 477 filers to consolidate data for multiple operations within a state on a single submission, and filers are permitted to determine the organizational level at which they submit their filings. A parent or holding company may file on behalf of its subsidiaries or the subsidiaries may file their own Form 477. Accordingly, the Commission will now require filers to report, in each 477 filing, the company's Universal

Service Administrative Company (USAC) study area codes, USAC 499 identification numbers, and website address. This information enables the Commission to aggregate, compare, and analyze, by a common provider, the various data it collects through different forms and filing requirements.

107. The Commission will also require that filers report the name, phone number, and email address of their emergency operations contact. The information currently collected by Form 477 is not sufficient for use in promptly contacting providers' network operating centers during emergencies. Some commenters support the collection of additional emergency contact information. For example, Qwest states that this information should be collected, since "[e]mergency contact information could be added to Form 477 without placing any material burden on the service providers." However, other commenters argue that Form 477 is not the appropriate vehicle for the Commission to collect this contact information.

108. The Commission needs this emergency operations contact information to fulfill its statutory public safety mandates. The Commission must be able to directly contact individuals who can provide information on network status during natural disasters or other emergencies. As a mandatory, recurring filing by providers of telephone and broadband service, Form 477 will be a particularly effective vehicle for collecting emergency contact data that are comprehensive and current, with a relatively small burden on filers. The Commission currently has no structured, recurring, mandatory collection of contact information in place specifically for use in emergencies affecting telephone and/or broadband networks. The Commission's Disaster Information Reporting System (DIRS) does collect contact information, but only on a voluntary basis for use during large-scale disasters. It is important for the Commission to have contact

information from all providers that file Form 477, including those providers that do not choose to participate in DIRS, and that this information is updated consistently.

109. Finally, filers of Form 477 will be required to report the name, title, and contact information of their certifying official. This essential information provides assurance and the ability to confirm if needed that the certifying official has the authority to certify that the data submitted is accurate and truthful.

B. Summary of Significant Issues Raised by Public Comments in Response to the IRFA

110. In this section, we respond to comments filed in response to the IRFA. To the extent we received comments raising general small business concerns during this proceeding, those comments are discussed throughout the Report and Order.

111. OPASTCO, NTCA, and WTA assert that the Commission should narrow its efforts and collect only that information for which it has a legitimate statutory or regulatory need. In addition, they comment that, to the extent that other avenues for gathering information exist, the Commission should use those avenues in order to eliminate duplicative filing requirements for service providers. OPASTCO et al. also comment that the Commission must remain mindful of the burdens new requirements could impose on small providers like rural LECs, and that specifically, detailed new reporting requirements could prove difficult for small providers that manually maintain physical plant records, instead of using sophisticated computerized systems.

112. The Commission takes steps in the Order to protect against duplication in the Form 477 collection and reduce the burden on filers by narrowly tailoring the collection of data to those most useful to the Commission. The Commission found in the Order that the collection of

deployment and subscription data was necessary to fulfill a number of the Commission's statutory and policy goals, including its statutory obligation to assess annually the state of broadband availability, update its universal service policies and monitor whether its statutory universal service goals are being achieved, and meet its public safety obligations. In addition, in the Order, the Commission directed the Wireline Competition Bureau, in consultation with the Wireless Telecommunications Bureau, to identify any circumstances in which the collection of company identification information on Form 477 may duplicate another Commission collection, and to exempt filers from the latter in those instances.

113. The Commission also considered whether data available from outside sources, including providers' websites, is sufficient to inform the Commission about the expansion of broadband networks. The Commission found, however, that reliance on third-party data is not appropriate for a primary source of deployment data.

114. Finally, with its new collection of deployment data, the requirements in the Order are designed to reduce filing burdens and increase reliability of the data in several ways. For example, the changes to the SBI collection are designed to reduce filing burdens and increase reliability of the data. The collection will occur in a single, unified process rather than on a state-by-state basis. A single, nationwide filing (that includes both deployment and subscription data) will help eliminate potential variations among states, and reduce to one the number of entities with which a multistate provider must coordinate for its filing. In addition, the elimination of speed tiers will reduce burdens associated with categorizing data into those tiers. The data will also be more reliable because all providers must file, and must certify to the accuracy upon filing. The Commission also declined to gather fixed broadband deployment data at a level more granular than the census block, finding that the added complexity and burden are unlikely at this

time to provide a significant insight into how many residences and businesses lack access to service. In short, the collection is carefully tailored to provide the Commission the data it needs to fulfill its mission, while taking steps to minimize the burden on filers. As a result, the Commission expects that communications providers' overall reporting burden will decrease even though the Commission will be collecting more data.

115. Further, the Commission noted that the Wireline Competition Bureau will release a draft data specification that reflects the changes necessary to implement this Order. As they have with every previous revision of Form 477, Wireline Competition Bureau staff will work with providers to ensure that the providers have the tools they need to complete and file the form in the least burdensome manner possible. The Commission delegated authority to the Wireline Competition Bureau, in consultation with the Wireless Telecommunications Bureau, to implement any technical improvements or other clarifications to the filing mechanism and forms that will make compliance easier for filers.

116. AT&T argued that the proposed pricing collection from broadband providers would impose significant and unnecessary burdens on broadband providers in violation of the Regulatory Flexibility Act. The Commission does not require the filing of pricing data in the Order.

C. Description and Estimate of the Number of Small Entities to Which the Rules Will Apply

117. The RFA directs agencies to provide a description of, and, where feasible, an estimate of, the number of small entities that may be affected by the rules adopted herein. The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction." In addition, the term

“small business” has the same meaning as the term “small business concern” under the Small Business Act. A “small business concern” is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).

1. Wireline Providers

118. Incumbent Local Exchange Carriers (Incumbent LECs). Neither the Commission nor the SBA has developed a small business size standard specifically for incumbent local exchange services. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees. Census Bureau data for 2007, which now supersede data from the 2002 Census, show that there were 3,188 firms in this category that operated for the entire year. Of this total, 3,144 had employment of 999 or fewer, and 44 firms had had employment of 1000 or more. According to Commission data, 1,307 carriers reported that they were incumbent local exchange service providers. Of these 1,307 carriers, an estimated 1,006 have 1,500 or fewer employees and 301 have more than 1,500 employees. Consequently, the Commission estimates that most providers of local exchange service are small entities that may be affected by the rules and policies proposed in the Notice. Thus under this category and the associated small business size standard, the majority of these incumbent local exchange service providers can be considered small providers.

119. Competitive Local Exchange Carriers (Competitive LECs), Competitive Access Providers (CAPs), Shared-Tenant Service Providers, and Other Local Service Providers. Neither the Commission nor the SBA has developed a small business size standard specifically for these service providers. The appropriate size standard under SBA rules is for the category Wired

Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees. Census Bureau data for 2007, which now supersede data from the 2002 Census, show that there were 3,188 firms in this category that operated for the entire year. Of this total, 3,144 had employment of 999 or fewer, and 44 firms had had employment of 1,000 employees or more. Thus under this category and the associated small business size standard, the majority of these Competitive LECs, CAPs, Shared-Tenant Service Providers, and Other Local Service Providers can be considered small entities. According to Commission data, 1,442 carriers reported that they were engaged in the provision of either competitive local exchange services or competitive access provider services. Of these 1,442 carriers, an estimated 1,256 have 1,500 or fewer employees and 186 have more than 1,500 employees. In addition, 17 carriers have reported that they are Shared-Tenant Service Providers, and all 17 are estimated to have 1,500 or fewer employees. In addition, 72 carriers have reported that they are Other Local Service Providers. Of the 72, seventy have 1,500 or fewer employees and two have more than 1,500 employees. Consequently, the Commission estimates that most providers of competitive local exchange service, competitive access providers, Shared-Tenant Service Providers, and Other Local Service Providers are small entities that may be affected by rules adopted pursuant to the Notice.

120. Interexchange Carriers. Neither the Commission nor the SBA has developed a small business size standard specifically for providers of interexchange services. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees. Census Bureau data for 2007, which now supersede data from the 2002 Census, show that there were 3,188 firms in this category that operated for the entire year. Of this total, 3,144 had

employment of 999 or fewer, and 44 firms had had employment of 1,000 employees or more. Thus under this category and the associated small business size standard, the majority of these Interexchange carriers can be considered small entities. According to Commission data, 359 companies reported that their primary telecommunications service activity was the provision of interexchange services. Of these 359 companies, an estimated 317 have 1,500 or fewer employees and 42 have more than 1,500 employees. Consequently, the Commission estimates that the majority of interexchange service providers are small entities that may be affected by rules adopted pursuant to the Notice.

121. Operator Service Providers (OSPs). Neither the Commission nor the SBA has developed a small business size standard specifically for operator service providers. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees. Under that size standard, such a business is small if it has 1,500 or fewer employees. Census Bureau data for 2007, which now supersede data from the 2002 Census, show that there were 3,188 firms in this category that operated for the entire year. Of this total, 3,144 had employment of 999 or fewer, and 44 firms had had employment of 1,000 employees or more. Thus under this category and the associated small business size standard, the majority of these Interexchange carriers can be considered small entities. According to Commission data, 33 carriers have reported that they are engaged in the provision of operator services. Of these, an estimated 31 have 1,500 or fewer employees and 2 have more than 1,500 employees. Consequently, the Commission estimates that the majority of OSPs are small entities that may be affected by our proposed action.

122. Local Resellers. The SBA has developed a small business size standard for the category of Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees. Census data for 2007 show that 1,523 firms provided resale services during that year. Of that number, 1,522 operated with fewer than 1000 employees and one operated with more than 1,000. Thus under this category and the associated small business size standard, the majority of these local resellers can be considered small entities. According to Commission data, 213 carriers have reported that they are engaged in the provision of local resale services. Of these, an estimated 211 have 1,500 or fewer employees and two have more than 1,500 employees. Consequently, the Commission estimates that the majority of local resellers are small entities that may be affected by rules adopted pursuant to the Notice.

123. Toll Resellers. The SBA has developed a small business size standard for the category of Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees. Census data for 2007 show that 1,523 firms provided resale services during that year. Of that number, 1,522 operated with fewer than 1000 employees and one operated with more than 1,000. Thus under this category and the associated small business size standard, the majority of these resellers can be considered small entities. According to Commission data, 881 carriers have reported that they are engaged in the provision of toll resale services. Of these, an estimated 857 have 1,500 or fewer employees and 24 have more than 1,500 employees. Consequently, the Commission estimates that the majority of toll resellers are small entities that may be affected by our action.

124. Payphone Service Providers (PSPs). Neither the Commission nor the SBA has developed a small business size standard specifically for payphone services providers. The appropriate size standard under SBA rules is for the category Wired Telecommunications

Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees. Census Bureau data for 2007, which now supersede data from the 2002 Census, show that there were 3,188 firms in this category that operated for the entire year. Of this total, 3,144 had employment of 999 or fewer, and 44 firms had had employment of 1,000 employees or more. Thus under this category and the associated small business size standard, the majority of these PSPs can be considered small entities. According to Commission data, 657 carriers have reported that they are engaged in the provision of payphone services. Of these, an estimated 653 have 1,500 or fewer employees and four have more than 1,500 employees. Consequently, the Commission estimates that the majority of payphone service providers are small entities that may be affected by our action.

125. Prepaid Calling Card Providers. Neither the Commission nor the SBA has developed a small business size standard specifically for prepaid calling card providers. The appropriate size standard under SBA rules is for the category Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees. Census data for 2007 show that 1,523 firms provided resale services during that year. Of that number, 1,522 operated with fewer than 1000 employees and one operated with more than 1,000. Thus under this category and the associated small business size standard, the majority of these prepaid calling card providers can be considered small entities. According to Commission data, 193 carriers have reported that they are engaged in the provision of prepaid calling cards. Of these, an estimated all 193 have 1,500 or fewer employees and none have more than 1,500 employees. Consequently, the Commission estimates that the majority of prepaid calling card providers are small entities that may be affected by rules adopted pursuant to the Notice.

126. 800 and 800-Like Service Subscribers. Neither the Commission nor the SBA has developed a small business size standard specifically for 800 and 800-like service (“toll free”) subscribers. The appropriate size standard under SBA rules is for the category Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees. Census data for 2007 show that 1,523 firms provided resale services during that year. Of that number, 1,522 operated with fewer than 1000 employees and one operated with more than 1,000. Thus under this category and the associated small business size standard, the majority of resellers in this classification can be considered small entities. To focus specifically on the number of subscribers than on those firms which make subscription service available, the most reliable source of information regarding the number of these service subscribers appears to be data the Commission collects on the 800, 888, 877, and 866 numbers in use. According to our data, as of September 2009, the number of 800 numbers assigned was 7,860,000; the number of 888 numbers assigned was 5,888,687; the number of 877 numbers assigned was 4,721,866; and the number of 866 numbers assigned was 7,867,736. The Commission does not have data specifying the number of these subscribers that are not independently owned and operated or have more than 1,500 employees, and thus are unable at this time to estimate with greater precision the number of toll free subscribers that would qualify as small businesses under the SBA size standard. Consequently, the Commission estimates that there are 7,860,000 or fewer small entity 800 subscribers; 5,888,687 or fewer small entity 888 subscribers; 4,721,866 or fewer small entity 877 subscribers; and 7,867,736 or fewer small entity 866 subscribers.

2. Wireless Carriers and Service Providers

127. Since 2007, the Census Bureau has placed wireless firms under the category of Wireless Telecommunications Carriers (except Satellite). Census data for 2007 show there were 1,383 firms that operated in this category during that year. Of those 1,383, 1,368 had fewer than 100 employees, and 15 firms had more than 100 employees, based on the Census data.

128. The SBA has developed a small business size standard for Wireless Telecommunications Carriers (except Satellite) that deems a wireless business to be small if it has 1,500 or fewer employees. We applied this standard to Commission data to develop another estimate of the number of wireless providers that are small. According to the Commission estimates based on FCC Form 499-A data, there were 970 wireless service providers in 2007. Of those, an estimated 815 had 1,500 or fewer employees, and 155 had more than 1,500 employees. In addition, 413 of the 970 providers reported that they were engaged in the provision of wireless telephony, including cellular service, Personal Communications Service (PCS), and Specialized Mobile Radio (SMR) Telephony services. Of those, an estimated 261 had 1,500 or fewer employees, and 152 had more than 1,500 employees. Thus, using the available Form 499-A and Census data, we estimate that the majority of wireless firms can be considered small.

129. In addition, the Commission has defined companies as “small businesses” and “very small businesses” when auctioning spectrum licenses, for purposes of determining eligibility for bidding credits, and the SBA has approved these definitions. For example, in the Wireless Communications Service (WCS), 700 MHz Guard Band, and 39 GHz spectrum auctions, the Commission defined a “small business” as an entity with average gross revenues of \$40 million for each of the three preceding years, and a “very small business” as an entity with average gross revenues of \$15 million for each of the three preceding years. In the 800 MHz/900

MHz, 220 MHz, and 24 GHz spectrum auctions, the Commission defined a “small business” as an entity that had revenues of no more than \$15 million in each of the three previous calendar years and a “very small business” as an entity that had revenues of no more than \$3 million in each of the three previous calendar years. However, the number of winning bidders that qualify as small businesses at the close of an auction is generally not an accurate representation of the number of small wireless providers potentially subject to Form 477. Reasons for this include: winning bidders may not offer service or may not offer a service subject to Form 477, winning bidders’ revenues may increase after an auction, and winning bidders may transfer their licenses to another entity. The Commission does not typically track the revenues of spectrum licensees subsequent to an auction, unless unjust enrichment issues are implicated in the context of spectrum license assignments or transfers.

3. Satellite Service Providers

130. Satellite Telecommunications Providers. Two economic census categories address the satellite industry. The first category has a small business size standard of \$15 million or less in average annual receipts, under SBA rules. The second has a size standard of \$25 million or less in annual receipts.

131. The category of Satellite Telecommunications “comprises establishments primarily engaged in providing telecommunications services to other establishments in the telecommunications and broadcasting industries by forwarding and receiving communications signals via a system of satellites or reselling satellite telecommunications.” Census Bureau data for 2007 show that 512 Satellite Telecommunications firms that operated for that entire year. Of this total, 464 firms had annual receipts of under \$10 million, and 18 firms had receipts of \$10

million to \$24,999,999. Consequently, the Commission estimates that the majority of Satellite Telecommunications firms are small entities that might be affected by our action.

132. The second category, i.e. “All Other Telecommunications” comprises “establishments primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation. This industry also includes establishments primarily engaged in providing satellite terminal stations and associated facilities connected with one or more terrestrial systems and capable of transmitting telecommunications to, and receiving telecommunications from, satellite systems. Establishments providing Internet services or voice over Internet protocol (VoIP) services via client-supplied telecommunications connections are also included in this industry.” For this category, Census Bureau data for 2007 show that there were a total of 2,383 firms that operated for the entire year. Of this total, 2,347 firms had annual receipts of under \$25 million and 12 firms had annual receipts of \$25 million to \$49, 999,999. Consequently, the Commission estimates that the majority of All Other Telecommunications firms are small entities that might be affected by our action.

4. Cable and OVS Operators

133. Because section 706 requires us to monitor the deployment of broadband regardless of technology or transmission media employed, the Commission anticipates that some broadband service providers may not provide telephone service. Accordingly, the Commission describes below other types of firms that may provide broadband services, including cable companies, MDS providers, and utilities, among others.

134. Cable and Other Program Distributors. Since 2007, these services have been defined within the broad economic census category of Wired Telecommunications Carriers; that category is defined as follows: “This industry comprises establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks. Transmission facilities may be based on a single technology or a combination of technologies.” The SBA has developed a small business size standard for this category, which is: all such firms having 1,500 or fewer employees. Census data for 2007, which supersede data contained in the 2002 Census, show that there were 1,383 firms that operated that year. Of those 1,383, 1,368 had fewer than 100 employees, and 15 firms had more than 100 employees. Thus under this category and the associated small business size standard, the majority of such firms can be considered small.

135. Cable Companies and Systems. The Commission has also developed its own small business size standards, for the purpose of cable rate regulation. Under the Commission’s rules, a “small cable company” is one serving 400,000 or fewer subscribers, nationwide. Industry data indicate that, of 1,076 cable operators nationwide, all but eleven are small under this size standard. In addition, under the Commission’s rules, a “small system” is a cable system serving 15,000 or fewer subscribers. Industry data indicate that, of 7,208 systems nationwide, 6,139 systems have under 10,000 subscribers, and an additional 379 systems have 10,000–19,999 subscribers. Thus, under this second size standard, most cable systems are small.

136. Cable System Operators. The Communications Act of 1934, as amended, also contains a size standard for small cable system operators, which is “a cable operator that, directly or through an affiliate, serves in the aggregate fewer than 1 percent of all subscribers in the

United States and is not affiliated with any entity or entities whose gross annual revenues in the aggregate exceed \$250,000,000.” The Commission has determined that an operator serving fewer than 677,000 subscribers shall be deemed a small operator, if its annual revenues, when combined with the total annual revenues of all its affiliates, do not exceed \$250 million in the aggregate. Industry data indicate that, of 1,076 cable operators nationwide, all but ten are small under this size standard. We note that the Commission neither requests nor collects information on whether cable system operators are affiliated with entities whose gross annual revenues exceed \$250 million, and therefore we are unable to estimate more accurately the number of cable system operators that would qualify as small under this size standard.

137. Open Video Services. Open Video Service (OVS) systems provide subscription services. The open video system (“OVS”) framework was established in 1996, and is one of four statutorily recognized options for the provision of video programming services by local exchange carriers. The OVS framework provides opportunities for the distribution of video programming other than through cable systems. Because OVS operators provide subscription services, OVS falls within the SBA small business size standard covering cable services, which is “Wired Telecommunications Carriers.” The SBA has developed a small business size standard for this category, which is: all such firms having 1,500 or fewer employees. To gauge small business prevalence for the OVS service, the Commission relies on data currently available from the U.S. Census for the year 2007. According to that source, there were 3,188 firms that in 2007 were Wired Telecommunications Carriers. Of these, 3,144 operated with less than 1,000 employees, and 44 operated with more than 1,000 employees. However, as to the latter 44 there is no data available that shows how many operated with more than 1,500 employees. Based on this data, the majority of these firms can be considered small. In addition, we note that the Commission

has certified some OVS operators, with some now providing service. Broadband service providers (“BSPs”) are currently the only significant holders of OVS certifications or local OVS franchises. The Commission does not have financial or employment information regarding the entities authorized to provide OVS, some of which may not yet be operational. Thus, at least some of the OVS operators may qualify as small entities. The Commission further notes that it has certified approximately 45 OVS operators to serve 75 areas, and some of these are currently providing service. Affiliates of Residential Communications Network, Inc. (RCN) received approval to operate OVS systems in New York City, Boston, Washington, D.C., and other areas. RCN has sufficient revenues to assure that they do not qualify as a small business entity. Little financial information is available for the other entities that are authorized to provide OVS and are not yet operational. Given that some entities authorized to provide OVS service have not yet begun to generate revenues, the Commission concludes that up to 44 OVS operators (those remaining) might qualify as small businesses that may be affected by the rules and policies adopted herein.

5. Internet Service Providers, Web Portals and Other Information Services

138. In 2007, the SBA recognized two new small business, economic census categories. They are (1) Internet Publishing and Broadcasting and Web Search Portals, and (2) All Other Information Services.

139. Internet Service Providers. The 2007 Economic Census places these firms, whose services might include voice over Internet protocol (VoIP), in either of two categories, depending on whether the service is provided over the provider’s own telecommunications facilities (*e.g.*, cable and DSL ISPs), or over client-supplied telecommunications connections

(e.g., dial-up ISPs). The former are within the category of Wired Telecommunications Carriers, which has an SBA small business size standard of 1,500 or fewer employees. These are also labeled “broadband.” The latter are within the category of All Other Telecommunications, which has a size standard of annual receipts of \$25 million or less. These are labeled non-broadband.

140. The most current Economic Census data for all such firms are 2007 data, which are detailed specifically for ISPs within the categories above. For the first category, the data show that 396 firms operated for the entire year, of which 159 had nine or fewer employees. For the second category, the data show that 1,682 firms operated for the entire year. Of those, 1,675 had annual receipts below \$25 million per year, and an additional two had receipts of between \$25 million and \$ 49,999,999. Consequently, we estimate that the majority of ISP firms are small entities.

141. Internet Publishing and Broadcasting and Web Search Portals. This industry comprises establishments primarily engaged in 1) publishing and/or broadcasting content on the Internet exclusively or 2) operating Web sites that use a search engine to generate and maintain extensive databases of Internet addresses and content in an easily searchable format (and known as Web search portals). The publishing and broadcasting establishments in this industry do not provide traditional (non-Internet) versions of the content that they publish or broadcast. They provide textual, audio, and/or video content of general or specific interest on the Internet exclusively. Establishments known as Web search portals often provide additional Internet services, such as e-mail, connections to other web sites, auctions, news, and other limited content, and serve as a home base for Internet users. The SBA has developed a small business size standard for this category; that size standard is 500 employees. Less than 500 employees is considered small. According to Census Bureau data for 2007, there were 2,705 firms that

provided one or more of these services for that entire year. Of these, 2,682 operated with less than 500 employees and 13 operated with 500 to 999 employees. Consequently, we estimate that the majority of these firms are small entities that may be affected by our action.

142. Data Processing, Hosting, and Related Services. This industry comprises establishments primarily engaged in providing infrastructure for hosting or data processing services. These establishments may provide specialized hosting activities, such as web hosting, streaming services or application hosting; provide application service provisioning; or may provide general time-share mainframe facilities to clients. Data processing establishments provide complete processing and specialized reports from data supplied by clients or provide automated data processing and data entry services. The SBA has developed a small business size standard for this category; that size standard is \$25 million or less in average annual receipts. According to Census Bureau data for 2007, there were 8,060 firms in this category that operated for the entire year. Of these, 6,726 had annual receipts of under \$25 million, and 155 had receipts between \$25 million and \$49,999,999 million. Consequently, we estimate that the majority of these firms are small entities that may be affected by our action.

143. All Other Information Services. “This industry comprises establishments primarily engaged in providing other information services (except new syndicates and libraries and archives).” Our action pertains to interconnected VoIP services, which could be provided by entities that provide other services such as email, online gaming, web browsing, video conferencing, instant messaging, and other, similar IP-enabled services. The SBA has developed a small business size standard for this category; that size standard is \$7.0 million or less in average annual receipts. According to Census Bureau data for 2007, there were 367 firms in this category that operated for the entire year. Of these, 334 had annual receipts of under \$5 million,

and an additional 11 firms had receipts of between \$5 million and \$9,999,999. Consequently, we estimate that the majority of these firms are small entities that may be affected by our action.

D. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

144. In today's Order, the Commission modifies the FCC Form 477 data collection to streamline the collection and improve the quality of the data collected. These revisions impose further reporting and recordkeeping requirements on current Form 477 filers, including small entities.

145. Deployment. To ensure continuity with the National Broadband Map, the Commission will collect network deployment data for fixed and mobile broadband as well as mobile voice network deployment data. The Order requires each facilities-based provider of fixed broadband service to provide a list of all census blocks in which it makes broadband service available to end users. Facilities-based providers of fixed broadband service will also be required to report the maximum speed offered in each census block where they offer service, breaking out reporting for residential and nonresidential services where appropriate, and by technology. With respect to mobile broadband, for each mobile broadband network technology (e.g., EV-DO, WCDMA, HSPA+, LTE, WiMAX) deployed in each frequency band (e.g., 700 MHz, Cellular, AWS, PCS, BRS/EBS), facilities-based mobile broadband providers should submit polygons representing the nationwide coverage area (including U.S. territories) of that technology. Facilities-based mobile wireless voice providers must submit geospatial data of their coverage area boundaries. For both fixed and mobile broadband deployment data, filers must report data on advertised speeds; to reduce the burden on filers, the Commission eliminates

predetermined speed tiers. Also to reduce burdens, the Commission allows mobile service providers to submit coverage maps on a nationwide rather than state-by-state basis.

146. Subscription. To improve the quality of the subscription data the Commission collects, the Order requires providers of fixed voice and interconnected VoIP services to file subscription data by census tract, as is currently required for fixed broadband subscription data, rather than the current process of requiring such providers to submit the list of ZIP codes in which they provide service to end-user customers. The Order also eliminates the use of speed tiers for broadband subscription data, and requires filers to provide the number of broadband connections by the advertised speeds associated with each product subscribed to in the relevant geographic area. Fixed providers will report connections by the maximum advertised upload and download speeds in each census tract, while mobile providers will report connections by minimum advertised upload and download speeds in each state.

147. The Order eliminates questions and requirements on the current Form 477 that require certain broadband providers to report information about the availability of broadband service, as opposed to information about actual subscribership to broadband service. These questions are no longer necessary in light of the new Form 477 collection of broadband deployment data, discussed above. Specifically, the Order eliminates Part I.B of the current form, which requires, by state: (1) each incumbent LEC with any DSL connections in service to report its best estimate of the percentage of residential end user premises in its service area to which its DSL connections could be provided using installed distribution facilities, (2) each cable system with any cable modem connections in service to report its best estimate of the percentage of residential end user premises in its service area to which its cable modem connections could be provided using installed distribution facilities, and (3) each network operator serving any

terrestrial mobile wireless broadband subscribers to report the total number of subscribers (i.e., including broadband, broadband plus voice, and voice-only subscribers) whose mobile device is capable of sending or receiving data at information transfer rates exceeding 200 kbps in at least one direction. In addition, the Order eliminates the requirement that fixed broadband providers submit data for every census tract within their “defined service territory” regardless of the number of subscribers in the tract. By eliminating these questions, the Commission protects against duplication in its collection and reduces the burden on filers by narrowly tailoring its collection of data to those most useful to the Commission.

148. In addition, the Commission eliminates the requirement that broadband providers submit state-level data on the percentage of their connections that are billed to end users and the percentage that are equipped over their own facilities. The Commission typically does not rely on these metrics at this level for competitive analysis, nor has it reported them in its semiannual Internet Access Services reports. Eliminating them will greatly simplify the revised Form 477 and its data collection interface, and will reduce burden for filers.

149. The Commission also modifies its current data collection in several ways to eliminate unnecessary information and produce data better suited to competitive analysis. The Commission removes the requirement that providers of local exchange telephone service report the number of lines provided to unaffiliated communications carriers as UNE-Platform (UNE-P). The Commission also eliminates reporting of the percentage of end-user lines provided over UNE-P. In addition, providers of interconnected VoIP service will no longer be required to report the number of companies purchasing their VoIP components or service for resale. The Commission typically does not rely on this metric at this level for competitive analysis. The Commission also simplifies the categories of information interconnected VoIP providers must

provide. Currently, the Form requires filers to report the percentage of VoIP subscriptions with nomadic functionality. The Order finds the burdens of this reporting distinction do not outweigh the benefits and so eliminates the nomadic category. Finally, the Commission requires local exchange telephone service providers to report, by state, how many of their access lines are bundled with broadband. This information about bundling can be evidence of consumers' willingness to switch voice service providers, and hence improves the Commission's competitive analysis.

150. Company Identification and Contact Information. To enhance the Commission's ability to meet public safety needs and obligations, the Order requires entities filing Form 477 to provide additional company identification and contact information. In addition to the current Form 477 requirements, the Commission will require filers to report the company's Universal Service Administrative Company (USAC) study area codes, USAC 499 identification numbers, and website address. The Order also requires that filers report the title of their certifying official and the name, phone number, and email address of their emergency operations contact. This information will assist the Commission in fulfilling its universal service mandate, evaluating merger, forbearance, and other applications, and protecting public safety. The information currently collected by Form 477 is not sufficient for use in promptly contacting providers' network operating centers during emergencies.

E. Steps Taken to Minimize the Significant Economic Impact on Small Entities, and Significant Alternatives Considered

151. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include (among others) the following four alternatives: (1) the establishment of differing compliance or reporting requirements or

timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities.

152. The Commission needs access to data that are comprehensive, reliable, sufficiently disaggregated, and reported in a standardized manner. The Order recognizes, however, that reporting obligations impose burdens on the reporting providers. Consequently, the Commission limits its collection to information that is narrowly tailored to meet its needs.

153. Deployment. With regard to the collection of deployment data, the changes to the SBI collection adopted in the Order are designed to reduce filing burdens and increase reliability of the data in several ways. The collection will occur in a single, unified process rather than on a state-by-state basis. A single, nationwide filing (that includes both deployment and subscription data) will help eliminate potential variations among states, and reduce to one the number of entities with which a multistate provider must coordinate for its filing. In addition, the elimination of speed tiers will reduce burdens associated with categorizing data into those tiers. The data will also be more reliable because all providers must file, and must certify to the accuracy upon filing. The Commission also declined to gather fixed broadband deployment data at a level more granular than the census block, finding that the added complexity and burden are unlikely at this time to provide a significant insight into how many residences and businesses lack access to service. In short, the collection is carefully tailored to provide the Commission the data it needs to fulfill its mission, while taking steps to minimize the burden on filers. As a result, the Commission expects that communications providers' overall reporting burden will decrease even though the Commission will be collecting more data.

154. The Commission considered whether data available from outside sources, including providers' websites, are sufficient to inform the Commission about the expansion of broadband networks. The Commission found, however, that reliance on third-party data is not appropriate for a primary source of deployment data. Among the problems the Commission faces in using commercial data are restrictions on reuse and publication of the data on which the Commission would rely. In addition, the Commission found in the 2012 Eighth Broadband Progress Report that while Mosaik data provide a useful tool for measuring developments in mobile broadband deployment, they may overstate the extent of mobile broadband coverage. Furthermore, because Mosaik reports advertised coverage as reported to it by mobile wireless providers, each of which may use a different standard for determining coverage, the Mosaik data are not consistent across geographic areas and service providers. Finally, tracking down deployment information on providers' websites would not provide consistent data for analysis, would be time consuming, and might not be comprehensive. The information on providers' websites is not certified and is generally not available in a format consistent enough to provide the level of geographic granularity the Commission requires.

155. In the Order, the Commission recognizes that submitting any information imposes burdens, which may be most keenly felt by small providers, but concludes that the benefits of having comprehensive data substantially outweigh the burdens. One of the primary objectives of Form 477 is to inform the Commission's efforts to encourage broadband deployment on a reasonable and timely basis to all Americans. The Commission concluded it that would miss important data relevant to this objective if it were to exempt small providers, which are likely to serve rural or insular areas of the United States, where barriers to deployment are typically the highest. Additionally, obtaining this information from small and rural providers helps ensure

that Connect America Fund support is indeed increasing broadband deployment and will help the Commission keep its universal service policies appropriately tailored over time. At the same time, the Commission is cognizant of the burdens of data collections, and has therefore taken steps to minimize burdens, including by making the deployment collection consistent, to a large extent, with NTIA's SBI data collection. For all of these reasons, the Commission concluded that the benefits of collecting deployment data outweigh the burdens on small providers that may be associated with collection of these data.

156. The Commission specifically considered at what geographic level to require reporting from small providers. The Commission found that reporting by census block will not be unduly burdensome for the majority of fixed broadband service providers, as many of these providers already voluntarily report deployment data by census block to NTIA's SBI program. Fixed broadband providers have, since June 2010, submitted the characteristics of their broadband deployment by census block to state mapping designees.

157. The Commission also considered whether to gather fixed broadband deployment data at a level more granular than the census block. The Commission declined to do so at this time because the added complexity and burden are unlikely to provide a significant insight into how many residences and businesses lack access to service. The Commission found that many providers do not maintain broadband network deployment data on an address-by-address basis. Also, rural areas where networks are deployed may not have "street" addresses assigned. The Commission was not persuaded that the benefits of requiring address-level data would outweigh the overall increase in the filing burden. The Commission concluded that requiring providers to report fixed broadband deployment data by census block appropriately balances the burdens of

reporting this information to the Commission with the level of granularity required to carry out our statutory duties.

158. The Commission also found that burdens on mobile wireless providers associated with providing digital representations of and geospatial data on their network coverage areas are not significant, and are outweighed by the public interest benefits associated with our collection. The geospatial data the Commission is collecting on spectrum and technology are used by mobile service providers for radio frequency (RF) network design and are an integral part of every mobile service provider's ordinary course of business. Accordingly, mobile deployment data by spectrum bands and network technology should be readily available to mobile service providers given that any mobile network deployment plan would include both the spectrum and the network technology to be used for such deployment.

159. In addition, many providers develop and maintain such data in order to publish maps of their coverage areas on their websites and in other promotional materials, and certain operators have provided network coverage boundaries to Mosaik. Certain providers also have submitted coverage area boundaries to the Commission as part of wireless transaction proceedings, and many providers have submitted coverage area boundaries in the SBI data collection. There are multiple GIS (Geographical Information Systems) platforms capable of creating and managing geospatial data on mobile network coverage areas, and there are many GIS specialists and engineering consultants in the United States who are able to provide expertise and develop such data for providers that do not have internal GIS resources.

160. Finally, the Commission also considered whether the collection of fixed voice network deployment data is warranted. It concluded that collecting additional fixed voice

network deployment data on Form 477 would be largely redundant and would impose an additional burden on voice providers. Therefore, the Commission declined to require providers of fixed voice services to report deployment data on Form 477.

161. Subscription. While the Commission believes that more granular subscription data would be preferable, it declines to collect more granular subscription data at this time to ensure that any burdens are minimized before initiating any additional collections. Accordingly, the Commission directs the Wireline Competition Bureau to test technical improvements to the Form 477 filing mechanism that might reduce the burden of filing more detailed subscription data. If, after analyzing such tests, the Bureau determines there is a means of minimizing burdens with a more detailed approach, the Commission will revisit whether to initiate such collection.

162. The Commission also eliminates the requirement that providers submit broadband data in predetermined speed tiers, and instead will require providers of broadband services, for both subscription and deployment data, simply to provide advertised speeds—the maximum advertised speed in each census block for fixed broadband, and the minimum advertised speed in each coverage area for mobile broadband. Streamlining the collection in this manner will give the Commission greater flexibility to group and analyze broadband speed data in useful ways. Eliminating speed tiers will permit the Commission to conduct a consistent analysis of subscription and deployment data and, because they will no longer be required to categorize the number of connections into existing speed tiers, will reduce burdens on filers.

163. Company Identification Information. In the Order, the Commission recognizes that it currently collects some company identification information in other contexts. Although these collections do not duplicate the information collection adopted in the Order—they apply to small

subsets of the universe of Form 477 filers and do not request the same level of detail—the Commission nonetheless takes precautions to ensure that no entity is burdened with duplicative filings. Accordingly, the Commission directed the Wireline Competition Bureau, in consultation with the Wireless Telecommunications Bureau, to identify any circumstances in which the collection of company identification information on Form 477 may duplicate another Commission collection, and to exempt filers from the latter in those instances.

F. Report to Congress

164. The Commission will send a copy of the Order, including this FRFA, in a report to be sent to Congress pursuant to the Congressional Review Act. In addition, the Commission will send a copy of the Order, including this FRFA, to the Chief Counsel for Advocacy of the SBA. A copy of the Order and FRFA (or summaries thereof) will also be published in the Federal Register.

VII. ORDERING CLAUSES

165. Accordingly, IT IS ORDERED that, pursuant to sections 4(i), 201, 214, 218-220, 251-252, 254, 303(r), 310, 332, and 403 of the Communications Act of 1934, as amended, 47 U.S.C. 154(i), 201, 214, 218-220, 251-252, 254, 303(r), 310, 332, and 403, 409, 502, and 503, and section 706 of the Telecommunications Act of 1996, as amended, 47 U.S.C. 1302, this Report and Order IS ADOPTED.

166. IT IS FURTHER ORDERED that Parts 0, 1 and 43 of the Commission's rules ARE AMENDED as set forth in Rules Appendix A.

167. IT IS FURTHER ORDERED that, pursuant to sections 1.4(b)(1) and 1.103(a) of the Commission's rules, 47 CFR 1.4(b)(1), 1.103(a), this Report and Order SHALL BE

EFFECTIVE [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER], except for the amendments to sections 1.7001, 1.7002, 43.01 and 43.11 of the Commission's rules, which contain information collection requirements that have not been approved by the Office of Management and Budget and will become effective upon announcement in the Federal Register of Office of Management and Budget approval and an effective date of the rules.

168. IT IS FURTHER ORDERED that the Commission SHALL SEND a copy of this Report and Order to Congress and to the Government Accountability Office pursuant to the Congressional Review Act, see 5 U.S.C. 801(a)(1)(A).

169. IT IS FURTHER ORDERED that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this Report and Order, including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

List of Subjects in 47 CFR Parts 0, 1 and 43

Broadband, Communications, Communications common carriers, Reporting and recordkeeping requirements, Telecommunications.

FEDERAL COMMUNICATIONS COMMISSION.

Marlene H. Dortch,
Secretary.

Final Rules

For the reasons discussed in the preamble, the Federal Communications Commission amends 47 CFR parts 0, 1, and 43 as follows:

PART 0 – COMMISSION ORGANIZATION

1. The authority citation for part 0 continues to read as follows:

Authority: Sec. 5, 48 Stat. 1068, as amended, 47 U.S.C. 155, 225, unless otherwise noted.

2. Amend § 0.91 to revise paragraph (f) to read as follows:

§ 0.91 Functions of the Bureau.

* * * * *

(f) Develop and administer recordkeeping and reporting requirements for telecommunications carriers, providers of interconnected VoIP service (as that term is defined in § 9.3 of this chapter), and providers of broadband services.

* * * * *

3. Amend § 0.457 to add paragraph (d)(1)(viii) to read as follows:

§ 0.457 Records not routinely available for public inspection.

* * * * *

(d) ***

(1) ***

(viii) Emergency contact information reported on FCC Form 477.

* * * * *

PART 1 – PRACTICE AND PROCEDURE

4. The authority citation for part 1 continues to read as follows:

Authority: 15 U.S.C. 79 et seq.; 47 U.S.C. 151, 154(i), 154(j), 155, 157, 225, 227, 303(r), and 309, Cable Landing License Act of 1921, 47 U.S.C. 35-39, and the Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. 112-96.

5. Amend §1.7001 by removing paragraph (a)(2), redesignating paragraphs (a)(3) and (a)(4) as (a)(2) and (a)(3), revising newly redesignated paragraph (a)(2), and revising paragraphs (b), (c) and (d) to read as follows:

§ 1.7001 Scope and content of filed reports.

(a) ***

(2) One-way broadband lines or wireless channels. Lines or wireless channels with information carrying capability in excess of 200 kilobits per second in at least one direction, but not both.

* * * * *

(b) All commercial and government-controlled entities, including but not limited to common carriers and their affiliates (as defined in 47 U.S.C. 153 (1)), cable television companies, terrestrial fixed wireless providers, terrestrial mobile wireless providers, satellite providers, utilities, and others, that are facilities-based providers shall file with the Commission a completed FCC Form 477, in accordance with the Commission's rules and the instructions to the FCC Form 477.

(c) Respondents identified in paragraph (b) of this section shall include in each report a certification signed by an appropriate official of the respondent (as specified in the instructions to FCC Form 477) and shall report the title of their certifying official.

(d) Disclosure of data contained in FCC Form 477 will be addressed as follows:

(1) Emergency operations contact information contained in FCC Form 477 are information that should not be routinely available for public inspection pursuant to §0.457 of this chapter.

(2) Respondents may make requests for Commission non-disclosure of the following data contained in FCC Form 477 under §0.459 of this chapter by so indicating on Form 477 at the time that the subject data are submitted:

(i) Provider-specific subscription data and

(ii) Provider-specific mobile deployment data that includes specific spectrum and speed parameters that may be used by providers for internal network planning purposes.

(3) Respondents seeking confidential treatment of any other data contained in FCC Form 477 must submit a request that the data be treated as confidential with the submission of their Form 477 filing, along with their reasons for withholding the information from the public, pursuant to §0.459 of this chapter.

(4) The Commission shall make all decisions regarding non-disclosure of provider-specific information, except that the Chief of the Wireline Competition Bureau may release provider-specific information to:

(i) A state commission provided that the state commission has protections in place that would preclude disclosure of any confidential information,

(ii) “Eligible entities,” as those entities are defined in the Broadband Data Improvement Act, in an aggregated format and pursuant to confidentiality conditions prescribed by the Commission, and

(iii) Others, to the extent that access to such data can be accomplished in a manner that addresses concerns about the competitive sensitivity of the data and precludes public disclosure of any confidential information.

* * * * *

6. Revise § 1.7002 to read as follows:

§ 1.7002 Frequency of reports.

Entities subject to the provisions of § 1.7001 shall file reports semi-annually. Reports shall be filed each year on or before March 1st (reporting data required on FCC Form 477 as of December 31 of the prior year) and September 1st (reporting data required on FCC Form 477 as of June 30 of the current year). Entities becoming subject to the provisions of § 1.7001 for the first time within a calendar year shall file data for the reporting period in which they become eligible and semi-annually thereafter.

PART 43 – REPORTS OF COMMUNICATION COMMON CARRIERS AND CERTAIN AFFILIATES

7. The authority citation for part 43 continues to read as follows:

Authority: 47 U.S.C. 154; Telecommunications Act of 1996; Pub.L. 104-104, sec. 402(b)(2)(B), (c), 110 Stat. 56 (1996) as amended unless otherwise noted. 47 U.S.C. 211, 219, 220, as amended; Cable Landing License Act of 1921, 47 U.S.C. 35-39.

8. Amend § 43.01 by revising paragraphs (a), (b), and (d) to read as follows:

§ 43.01 Applicability.

(a) The sections in this part include requirements which have been promulgated under authority of sections 211 and 219 of the Communications Act of 1934, as amended, with respect to the filing by communication common carriers and certain of their affiliates, as well as certain other providers, of periodic reports and certain other data, but do not include certain requirements relating to the filing of information with respect to specific services, accounting systems and other matters incorporated in other parts of this chapter.

(b) Except as provided in paragraphs (c) and (d) of this section, carriers and other providers becoming subject to the provisions of the several sections of this part for the first time, shall, within thirty (30) days of becoming subject, file the required data as set forth in the various sections of this part.

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(d) Common carriers and other service providers subject to the provisions of § 43.11 shall file data semi-annually. Reports shall be filed each year on or before March 1st (reporting data required on FCC Form 477 as of December 31 of the prior year) and September 1st (reporting data required on FCC Form 477 as of June 30 of the current year). Common carriers and other providers becoming subject to the provisions of §43.11 for the first time within a calendar year shall file data for the reporting period in which they become eligible and semi-annually thereafter.

9. Amend §43.11 to revise paragraphs (a), (b), and (c) to read as follows:

§ 43.11 Reports of local exchange competition data.

(a) All common carriers and their affiliates (as defined in 47 U.S.C. 153(1)) providing telephone exchange or exchange access service (as defined in 47 U.S.C. 153(16) and (47)), commercial mobile radio service (CMRS) providers offering mobile telephony (as defined in §20.15(b)(1) of this chapter), and Interconnected Voice over IP service providers (as defined in § 9.3 of this chapter), shall file with the Commission a completed FCC Form 477, in accordance with the Commission's rules and the instructions to the FCC Form 477.

(b) Respondents identified in paragraph (a) of this section shall include in each report a certification signed by an appropriate official of the respondent (as specified in the instructions to FCC Form 477) and shall report the title of their certifying official.

(c) Disclosure of data contained in FCC Form 477 will be addressed as follows:

(1) Emergency operations contact information contained in FCC Form 477 are information that should not be routinely available for public inspection pursuant to §0.457 of this chapter.

(2) Respondents may make requests for Commission non-disclosure of the following data contained in FCC Form 477 under §0.459 of this chapter by so indicating on Form 477 at the time that the subject data are submitted:

(i) Provider-specific subscription data and

(ii) Provider-specific mobile deployment data that includes specific spectrum and speed parameters that may be used by providers for internal network planning purposes.

(3) Respondents seeking confidential treatment of any other data contained in FCC Form 477 must submit a request that the data be treated as confidential with the submission of their Form 477 filing, along with their reasons for withholding the information from the public, pursuant to §0.459 of this chapter.

(4) The Commission shall make all decisions regarding non-disclosure of provider-specific information, except that the Chief of the Wireline Competition Bureau may release provider-specific information to:

(i) A state commission provided that the state commission has protections in place that would preclude disclosure of any confidential information, and

(ii) “Eligible entities,” as those entities are defined in the Broadband Data Improvement Act, in an aggregated format and pursuant to confidentiality conditions prescribed by the Commission, and

(iii) Others, to the extent that access to such data can be accomplished in a manner that addresses concerns about the competitive sensitivity of the data and precludes public disclosure of any confidential information.

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